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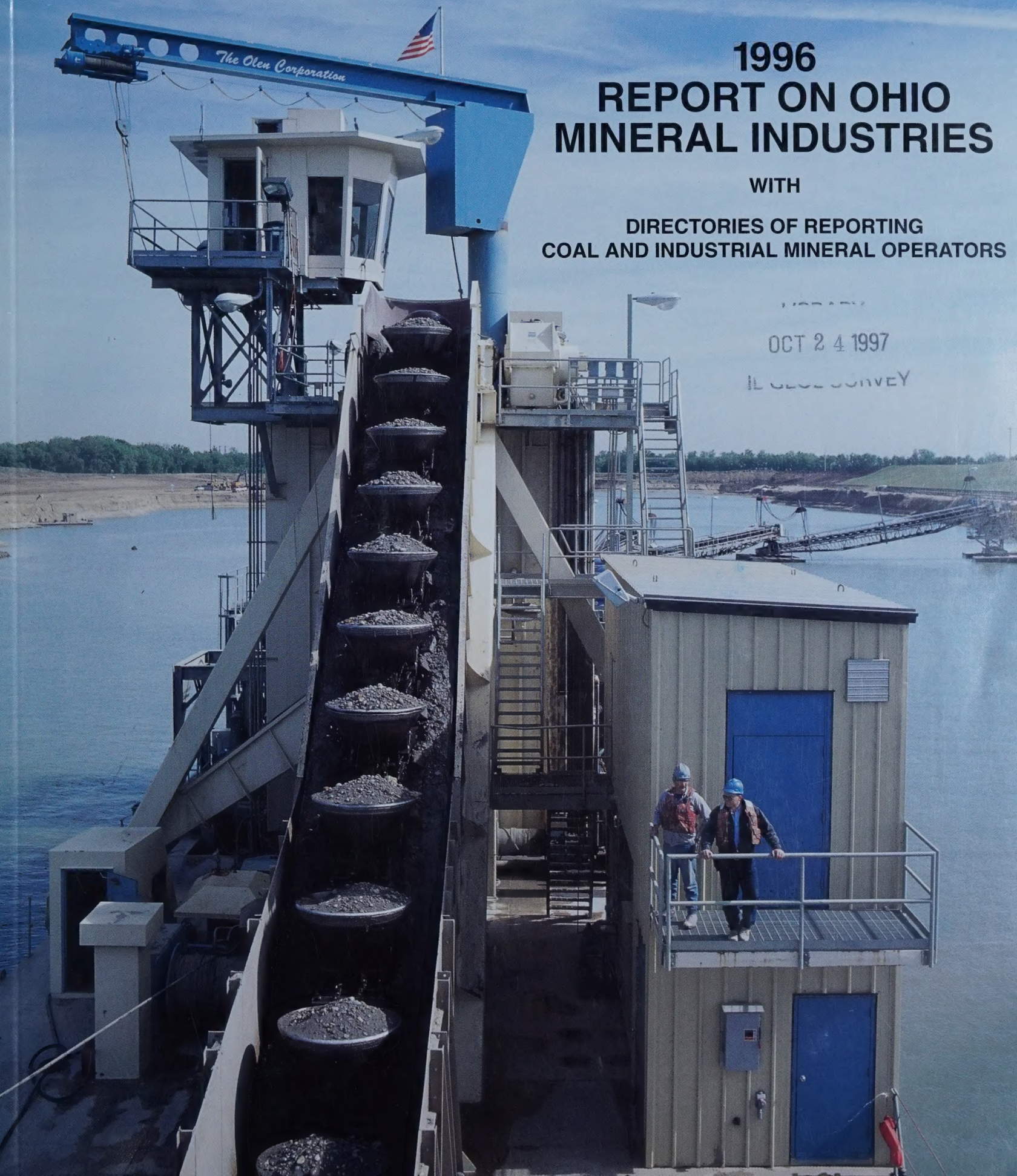

1996 REPORT ON OHIO MINERAL INDUSTRIES

WITH

DIRECTORIES OF REPORTING COAL AND INDUSTRIAL MINERAL OPERATORS

OCT 2 4 1997
IL GEOL SURVEY

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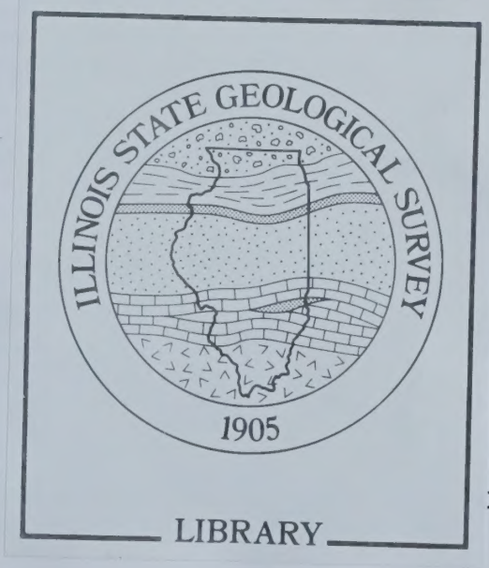
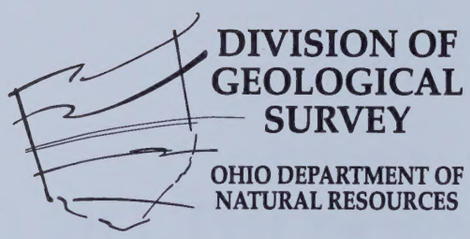
compiled by

Sherry L. Weisgarber



Columbus
1997



Typesetting and layout: Lisa Van Doren

Cover photos: Michael D. Williams

Front-cover illustration: View of the *Tiger*, the aggregate bucket-ladder dredger of Olen Corporation's Columbus Plant #3 in Franklin County. Plant manager Gregg Webb (right) and dredge ground man Dave Kolarik (left) inspect the bucket ladder as it brings up sand and gravel from the manmade lake. This state-of-the-art dredger was built on site by Kokosing Construction Co., the parent company of Olen Corporation. IHC, of Holland, supplied the design for the dredger, the ladder drive, and the positioning winches. The bucket chains and sprockets were supplied by Caterpillar. Each of the 56 buckets holds 625 liters (⅝ cubic yard) of raw material. The dredger can produce approximately 1,200 tons of raw material an hour. Aggregate less than 8 inches in diameter is transported across the floating conveyors (visible in the background to the right) to the field conveyors, where it travels to the plant for processing. Raw material larger than 8 inches is discharged back into the lake.

Back-cover illustrations: *Top left*: The *Mandy*, Olen Corporation's work boat, docked beside the dredger. The work boat is used to transport workers and equipment on and off the dredger and to place anchors. *Top right*: View looking down into the crushed-section surge pile. In the center of the photo the feed conveyor to the crushed section is coming out of the tunnel beneath the pile. *Middle*: The *Tiger* dredger anchored on the lake. *Bottom left*: View from the discharge end of the dredger. The floating conveyors take raw material to the field conveyors for transport to the plant. *Bottom right*: Another view of the crushed-section surge pile showing the tunnel beneath the pile where the feed conveyor is located.

PREFACE

As they move through their daily lives, most people do not give a lot of thought to being consumers of mineral resources. In the lead article for this year's *Report on Ohio mineral industries,* Sherry Weisgarber reminds us that each person will use over 1,000 tons of minerals in a lifetime. When we stop at the grocery store to pick up a jar of pickles, we never give a thought to the process that went into making the jar. We don't think about the geologic research and drilling that went into locating a high-quality quartz-sandstone deposit to serve as a source of silica for the jar. We don't think about the heavy-equipment technology that went into extracting, crushing, and transporting the sandstone. We don't think about the mechanical and chemical separating processes that were used to purify the silica sand for the glass-making procedure. We don't think about the natural-gas resources that were used to melt the silica and transform it into a pickle jar. We don't think about the extensive efforts by the miners that go into reclaiming the land when the mining is complete. For the most part, we just take our pickle jars for granted.

We also tend to take our aggregate resources for granted. Every man, woman, and child in Ohio consumes over 10 tons of aggregate (crushed stone or sand and gravel) each year. Aggregate is used in construction and maintenance of our transportation infrastructure and in building schools, hospitals, homes, shopping malls, office buildings, churches, and many other kinds of structures. Ohio is blessed with a great abundance of aggregate resources. But those resources are not always easy or economical to obtain. Making a stone quarry or a sand and gravel operation a profitable success depends on a host of limiting conditions. The amount of overburden that has to be removed is critical. The quality of the resource is also crucial. For example, if a sand and gravel deposit contains too many "flats" or fissile shale fragments, it may not meet specifications for use in highway construction. If a limestone deposit contains significant amounts of pyrite, it can be undesirable for use in concrete. By far, the geographic location of an aggregate resource is the most important limiting factor. Transportation costs can make or break a mining operation. Hauling aggregate from one side of a county to the other side can triple the cost of the delivered product.

As our population and its attendant infrastructures expand, we are faced with tough decisions about our economy and our environment. Americans have the highest standard of living of any nation and we have become huge consumers of mineral resources. We have also become increasingly concerned about just how the land is used. Today's land-use decisions need to be based on the best scientific, technical, and demographic information available, and must be based on very long range, detailed plans. Long-range planning should include identification of the location, quantity, and quality of valuable mineral resources such as close-in supplies of sand and gravel and crushed stone. It just makes economic common sense to consider setting aside areas containing these resources before they are permanently excluded by parking lots, golf courses, and shopping malls. At the very least—if such mineral areas are excluded—the decision to do so will have been a well-informed one and a matter of public record.

At the Division of Geological Survey, our geologists have begun an aggressive new geologic-mapping program focusing on the unconsolidated, surficial materials of the entire state. This new three-dimensional mapping endeavor under the direction of Rick Pavey follows the recent completion of bedrock-geology maps for all 788 of the 7.5-minute quadrangles for Ohio. The wide variety of surficial materials being mapped include the sand and gravel deposits such as that pictured on the front and back covers of this *Report on Ohio mineral industries.* Like the bedrock-mapping program, this new program is being conducted in cooperation with the U.S. Geological Survey (USGS) with partial support from the STATEMAP component of the National Cooperative Geologic-Mapping Program. Further cooperation with the USGS is being initiated under the *Great Lakes Initiative*, which will also involve the state geological surveys of Indiana and Illinois. The Division of Geological Survey's first surficial-materials mapping project will cover the greater Cincinnati region. We expect that the new maps will serve well in long-range land-use planning.

Thomas M. Berg
State Geologist & Chief

FOREWORD

For a different look this year, we feature photographs from Olen Corporation on the front and back cover of the report and throughout the inside. We thank Olen Corporation, especially Wayne Rayburn, Dave Baughman, Gregg Webb, and Dave Kolarik, for their cooperation in providing the time and photographs necessary for this coverage of their sand and gravel operation, the Columbus Plant #3. Detailed explanations of the front and back cover photos are on page ii.

I wrote the article in this year's report, "Rocks and minerals mined in Ohio and their uses." The article discusses which fossil fuels and industrial minerals are mined in Ohio, what the uses are for these mineral commodities (though Ohio-produced minerals may not be used for all the purposes listed), and why mining is important to all of us on a daily basis. This article has been published as GeoFacts No.11, one of a series of short explanations of a geologic topic in Ohio. Copies of GeoFacts No. 11, or the entire series, can be obtained from our Geologic Records Center by calling 614-265-6576. You can also obtain copies of our GeoFacts and other interesting information by visiting our Web site at <http://www.dnr.state.oh.us/odnr/geo_survey/>.

There are some additions and changes to this year's report. Table 2, *1996 Coal production and sales by county*, has been added. The total sales and production for each coal company are listed in a separate table (p. 9) rather than within the alphabetical directory of producing coal-mine operators. This change provides a more concise overview and consistency between the coal and the industrial minerals sections of the report.

Another major change to the report is how it is being assembled. Since 1992, most of the report has been produced by an outside typesetting service. We have gradually produced more and more of the report in house. For this year's report, all but the industrial mineral directories and map list were typeset by Lisa Van Doren on the Survey's Macintosh desktop-publishing system. The *Mineral industries map of Ohio* also was updated on the Macintosh. Next year the entire report should be assembled on the Macintosh, allowing us to complete the report more quickly so it will be available earlier in the year.

All changes and/or additions to this report are made to increase the clarity and usefulness of the report to the public. Any comments on the changes or the additions are welcome.

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Errata for
1995 report
now available
upon request

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ROCKS AND MINERALS MINED IN OHIO AND THEIR USES

by
Sherry L. Weisgarber,
Geologist and Mineral Statistician,
Ohio Department of Natural Resources, Division of Geological Survey

Rocks and minerals are very important in our everyday lives. Each of us will use over 2 million pounds (1,000 tons) of minerals in our lifetime. Although many Ohioans may be unaware of it, Ohio is an important producer of mineral resources, which are used on a daily basis by many industries and individuals. These mineral commodities contribute greatly to the economy of Ohio.

Ohio produces eight nonfuel minerals (also called industrial minerals) and three "mineral" fuels or fossil fuels. The three fossil fuels are coal, oil, and gas. The eight nonfuel minerals are primarily construction materials: limestone and dolomite, sand and gravel, sandstone and conglomerate, clay, shale, gypsum, salt, and peat. Most of the 88 counties in Ohio mine at least one of these mineral commodities. In 1996, nearly 400 companies mined these mineral resources from about 650 mines or quarries.

The economic value of Ohio's raw mineral commodities in 1996 totaled over $1.8 billion dollars. The total value of the manufactured products made from these raw materials far exceeds this number. Direct employment in Ohio's mineral industries, excluding the oil and gas industry, totaled almost 9,000 people, who earned total wages of $331 million. Most of this money is recycled into Ohio's economy, along with the money paid by the mining companies in city, county, state, severance, and property taxes. Besides the 9,000 people directly employed by mining companies, another 63,000 people are employed indirectly by trucking companies, blasting compánies, and repair shops and as drilling crews, electricians, plumbers, fuel suppliers, road maintenance crews, masons, architects, and sign makers. Mining employers and employees also help support businesses in their communities, such as office-supply companies, restaurants, grocery stores, clothing stores and, of course, the school system and teachers who teach the children of the mine employees.

Ohio mining companies are nationally renowned for excellence in reclamation of mined-out areas. Mining is compatible with environmental balance. Mined-out areas can be transformed into popular recreational areas such as parks and fishing, boating, and swimming areas, as well as attractive residential and commercial developments. Ohio's strict reclamation laws were enacted even before the federal reclamation laws.

The following paragraphs describe the mineral commodities produced in Ohio and list their various uses.

LIMESTONE AND DOLOMITE

Ohio ranks 2nd nationally in the production of lime and 7th nationally in the production of crushed stone

Limestone and dolomite are sedimentary rocks. Limestone is composed mostly of the mineral calcite (calcium carbonate). Dolomite is composed mostly of the mineral dolomite (calcium magnesium carbonate).

Limestone, including dolomite, has a wide variety of uses. Burned limestone (lime) is used in the steel industry as a fluxing agent (to get rid of impurities in the iron) and as a refractory product (to line steel furnaces) and in the chemical industry to manufacture such products as rubber. Limestone is used in sugar refining, agriculture (fertilizers, acidity control), water purification, construction (building stone, riprap, cement additive, and aggregate in concrete and asphalt), railroad ballast, soil stabilization, in toothpaste (except gels), lipstick, carpeting, chalk, china, vinyl flooring, paper (filler and whitener), ink, hair mousse, cleansers, caulking compounds, plastics (filler), tires, mag wheels, fiberglass, paint (filler and whitener), antacid medications, porcelain, and microwaveable containers. Most of the limestone and dolomite mined in Ohio is used as construction aggregate.

In 1996, 120 mines produced 69.4 million tons of limestone and dolomite from 53 Ohio counties. This commodity is mined in every part of our state except northeastern Ohio.

Limestone was first mined in Ohio by European settlers in the early 1800's. Early uses for limestone included whitewashing and plastering, building stone for foundations, hearthstones, and window sills, flux stone in the manufacture of iron, in agriculture, and the making of cement.

Trucks carry away the overburden from the top of a limestone quarry.

SAND AND GRAVEL

Ohio ranks 4th nationally in the production of construction sand and gravel and 8th in the production of industrial sand

Sand and gravel deposits in Ohio consist of sand-size and gravel- size grains of rock that were broken up, transported, and deposited by rivers and/or glaciers. Ohio's sand and gravel can be made up of any of the three major rock types: igneous, metamorphic, or sedimentary.

Sand and gravel are used mostly for construction pur-

poses as aggregate in concrete, asphalt, cement, road-base material, and fill. Gravel is used for driveways and sand is used for ice control, in sand-blasting, as molding sands for casting iron and aluminum, in plaster, and in glass making.

In 1996, 292 quarries mined 52.1 million tons of sand and gravel from 64 Ohio counties plus Lake Erie. Sand and gravel are produced in every part of the state.

Sand and gravel were the last of the industrial minerals in Ohio to be mined. Sand and gravel became widely used as a construction material when Ohio needed paved roads in the early 1900's.

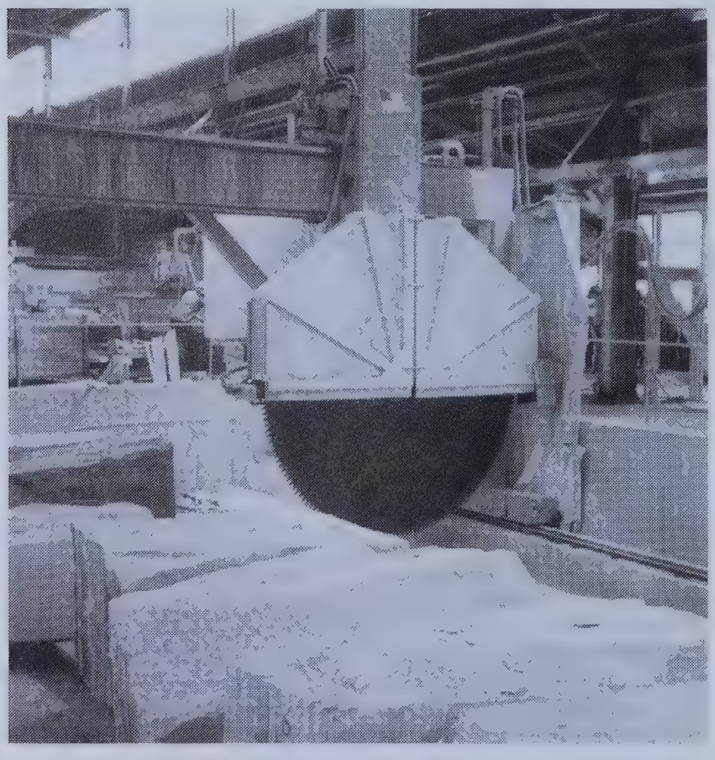
SANDSTONE AND CONGLOMERATE

Ohio ranks 1st nationally in the production of sandstone dimension stone

Sandstone is a medium-grained sedimentary rock formed by the cementation of sand grains, mostly quartz. A conglomerate is a coarse-grained sedimentary rock formed by the cementation of rounded gravel.

Sandstone, including conglomerate, is used in construction as dimension stone (building stone). Many sandstones have beautiful coloring, making them valuable as decorative dimension stone. Some sandstones are composed of very pure silica or quartz. Silica (silicon dioxide) is used as a source of silicon for manufacture of computer chips (hence the source of the name Silicon Valley), transistors, other semiconductors, and in infrared instruments. Sandstone also is used for making glass bottles, drinking glasses, light bulbs, TV screens, pool-table tops, laboratory counter tops, as a glaze for ceramics, grindstones, lubricants, filtration, golf-course trap sand, aggregate, riprap, molding sand, in fiberglass, plastics (filler), paint, gel toothpaste, and cosmetics (helps the flow and fragrance).

In 1996, 30 quarries mined 1.8 million tons of sandstone and conglomerate from 16 Ohio counties, all in the eastern half of the state. Sandstone was first used in the early 1800's by European settlers as building stone for foundations and other architectural purposes and for grindstones and pulpstones.



Diamond-tipped blade of a circular saw cuts sandstone into dimension stone.

CLAY AND SHALE

Ohio ranks 4th nationally in the production of common clay and shale

Clay is a sediment of soft plastic consistency composed mostly of extremely fine grained minerals known as clay minerals. Shale is a fine-grained, laminated (layered) sedimentary rock composed mostly of clay.

Clay and shale have many uses. In Ohio, they are used in construction for cement, bricks, ceramics, tiles, landfill covers and linings (keeps fluids from seeping in or out), and pond linings. Clay and shale are used in the manufacture of paper (improves printability and water resistance and keeps ink from bleeding), tires, plastics, paint, pencils, makeup, antiperspirants, as drilling fluids to produce oil and gas, as lightweight aggregate (after firing), as shampoo and toothpaste thickener, for filtering vegetable oils, and in antacid medications.

In 1996, about 82 mines produced 3.3 million tons of clay and shale from 35 Ohio counties. Clay is mined in the eastern and far western portions of Ohio. Shale is mined mostly in the eastern half of the state.

Prehistoric inhabitants of Ohio were the first to use clay and shale for their pottery, decorative jewelry, and pipes. European settlers began using clay and shale in the late 1700's for brick, tile, and china. Because of its abundant clay and shale resources, Ohio was a leader in the development of art pottery and other ceramic industries and the sewer tile industry.

Fired bricks are removed from kiln cars and stacked for shipping.

GYPSUM

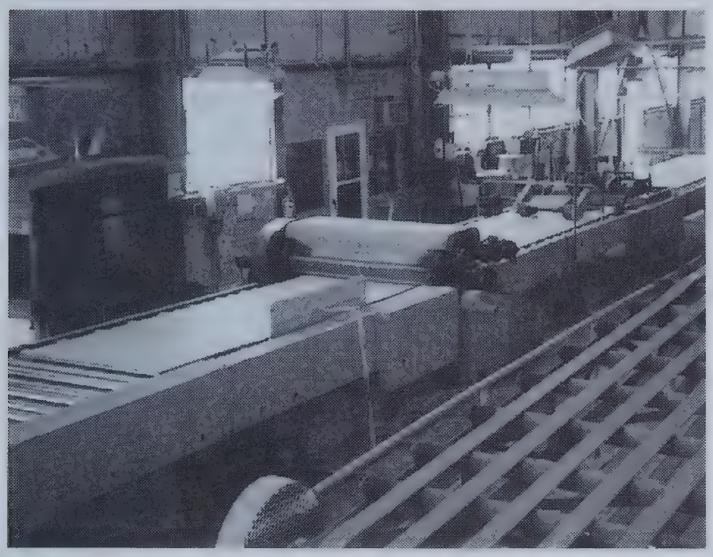
Ohio ranks 14th nationally in the production of gypsum

Gypsum is an evaporite mineral, and a sedimentary rock, composed of calcium sulfate. Evaporites form as crystals precipitate during evaporation of sea water.

Gypsum is used in wallboard, plaster-of-paris, caulking compounds, cement, as an additive to concrete to slow the setting rate, as a fertilizer in agriculture to regulate acidity, and as a filler in prescription medication. It is also used as

a stiffening agent in bakery products such as bread, cake, and cake frostings. All of Ohio's gypsum is used for the manufacture of wallboard.

In 1996, 267,700 tons of gypsum were produced from one mine in Ottawa County (along the western Lake Erie shore). Gypsum was first used in Ohio in the early 1800's as a soil conditioner.



A slurry of processed gypsum is formed into wallboard.

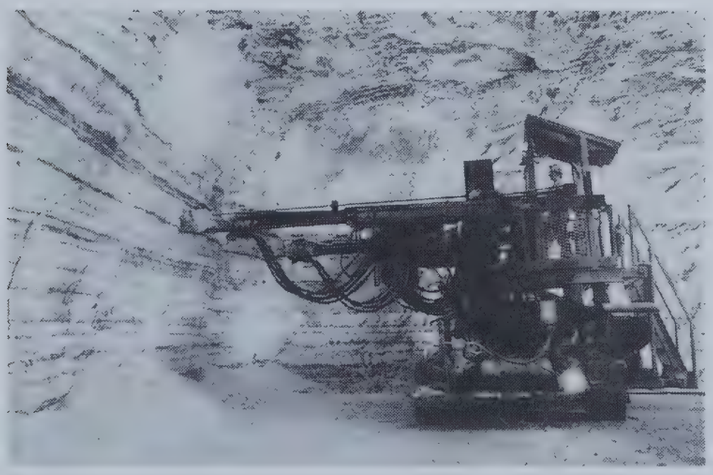
SALT

Ohio ranks 3rd nationally in the production of salt

Salt also is an evaporite mineral, as well as a sedimentary rock, and is composed of sodium chloride. Salt is used as a food additive, water-softening agent, for ice control, in ice cream making, as a glaze for ceramics, in animal feed and cattle blocks, well-drilling muds, baking, paper manufacture, meatpacking, and hide tanning. Most salt mined in Ohio is used for ice control.

In 1996, Ohio produced 5.2 million tons of salt—4.4 million tons of rock salt and 775,000 tons of evaporated salt. Rock salt is mined from two mines in northern Ohio about 2,000 feet under Lake Erie. Three brining operations in north-central Ohio produce salt by dissolving underground beds of rock salt, pumping the brine to the surface, and evaporating out the salt.

Ohio's prehistoric inhabitants used salt from naturally occurring salt-water springs as a food preservative and food additive. European settlers discovered Ohio's salt resources in the 1700's. Because salt is necessary to survive—our bodies contain about 8 oz of salt—the discovery of salt made Ohio a popular place to settle.



The rock salt under Lake Erie is drilled in preparation for mining.

PEAT

Ohio ranks 12th nationally in the production of peat

Peat is a brown, lightweight, unconsolidated deposit of plant remains and is the precursor to coal. When it is subjected to heat and pressure, 10 feet of peat makes 1 foot of coal.

Peat in Ohio is used mostly in agriculture as mulch and a soil conditioner. It is also used as bedding material to raise earthworms, to grow mushrooms, as a seed inoculant, and in planting mixes. Peat has good absorption, so it can be used for oil-spill cleanups. It is highly porous, so it can be used as a filtering agent to separate pollutants from contaminated water. Some peat is used for hog feed and to help cleanse the water in waste-water treatment plants.

In 1996, 8,000 tons of peat were produced from four mines in three Ohio counties in the northern portion of the state.

COAL

Ohio ranks 11th nationally in the production of coal and 3rd in consumption

Coal is a sedimentary rock formed from the consolidation of fossil plant material. It is black, rich in carbon, and burns readily.

Coal in Ohio is used primarily for the generation of electricity. Coal can also be coked for the smelting of ores and the manufacture of steel. Various components of coal are included in some medicines, dandruff shampoo, insecticides, dyes, perfumes, explosives, paints, insulation, varnish, moth balls, roofing shingles, and fuel gas.

In 1996, 134 mines produced 28.3 million tons of coal from 23 counties in the eastern portion of the state. Historically, coal was known in Ohio as early as 1755. It is probable that coal was first mined by early settlers for heat in the winter; however, record keeping did not begin until 1800, when the first mined coal production was reported.

Clean coal is carried by conveyor belt to a storage silo before shipment to an electric power plant.

HYDROCARBONS (OIL AND GAS)

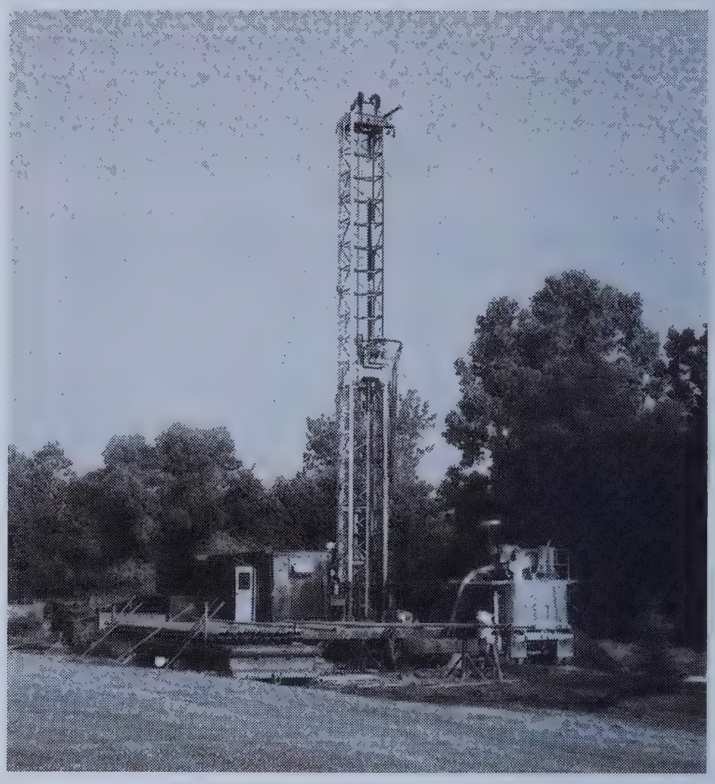
Ohio ranks 17th nationally in the volume of natural gas produced, 19th nationally in the volume of crude oil produced, and 7th nationally in the number of producing wells

A hydrocarbon is a compound containing the two elements carbon and hydrogen. Crude oil (petroleum) is a liquid mixture of naturally occurring hydrocarbons. Natural gas is a gaseous mixture of naturally occurring hydrocarbons.

Crude oil is distilled into many types of fuels and lubricants. Oil also is used in the manufacture of many types of plastics. Oil also is used to make crayons, eye shadow, bubble bath, hand lotion, medicines (cough syrup, aspirin, antibiotics), soaps, paint, clothing, dyes, perfumes, candles, wax paper, deodorant, disposable diapers, laundry softeners, and antifreeze. Natural gas is used for fuel.

In 1996, an estimated 712 new oil and gas wells were drilled in 46 Ohio counties, mostly in the central and eastern portions of the state. Seventy-seven percent of these wells were productive. The total reported crude oil production in Ohio in 1996 was 8.3 million barrels. Natural gas production in Ohio in 1996 was 120.4 million MCF (thousand cubic feet).

The presence of oil in Ohio was known by both Native Americans and European settlers. Oil accumulated on the surface of streams after seeping from the ground. Early settlers called it "Seneka Oil" and skimmed it off the surface of the water and used it for medicinal purposes. Natural gas was first used in the Findlay region in 1838, but it wasn't until 1860 that serious efforts were made to develop an oil and gas industry in Ohio.



A rotary rig is drilling for oil and gas.

1996 OHIO MINING ACTIVITIES IN BRIEF

Reports were filed in 1996 for 233 coal-mining operations, including 3 mines with their own coal-washing facility. Coal production was reported from 134 of these 233 operations. Reports also were filed for 42 separate coal-washing plants and associated facilities. Of 677 industrial-mineral-mining operations known to be operating in 1996, 493 operations were active. A total of 54 mines reported production of multiple mineral commodities. Of this total, 32 mines reported production of multiple industrial minerals; 12 mines reported production of multiple industrial minerals and coal; and 10 mines reported production of coal and one industrial mineral. There were 630 new wells completed for oil and gas in 1996, of which 482 were productive and 148 were dry.

The total value[1] of coal was $727,795,712 in 1996; the value of oil and gas was $476,034,199; and the total value[1] of all nonfuel industrial minerals was $606,858,500 in 1996.

[1]Includes reported and estimated values. Some operations reporting sales did not report a value for those sales. A countywide- or statewide-average price per ton was calculated for each industrial mineral commodity based on sales for which the value was reported. A countywide average price per ton was calculated for coal based on sales for which the value was reported and method of production. These calculated averages were used to estimate the value of the sales for which the actual values were not reported.

TABLE 1.—*1996 Mineral sales and production in Ohio*

Commodity	Sales[1]	Production[2]	Value[3]
Coal	28,619,579 tons	28,323,773 tons	$727,795,712
Limestone and dolomite	69,431,223 tons	69,098,412 tons	$288,640,762
Sand and gravel	52,092,243 tons	52,767,008 tons	$204,846,796
Salt	5,169,757 tons	4,885,957 tons	$56,928,065
Sandstone and conglomerate	1,808,816 tons	2,038,896 tons	$36,268,331
Clay	1,983,225 tons	1,980,688 tons	$12,791,571
Shale	1,357,276 tons	1,319,105 tons	$4,748,461
Gypsum	267,692 tons	267,692 tons	$2,543,074
Peat	7,923 tons	9,327 tons	$91,440
Gas	[4]	120,443,871 MCF[5]	$313,631,070
Oil	[4]	8,305,366 barrels	$162,403,129

[1]Includes material for captive use.
[2]The production figures for the industrial minerals are estimates. Many operators do not know actual production. Some operators report estimates, other operators do not report any production. For those operators who do not report production, production is assumed to equal sales.
[3]The FOB value of industrial minerals sold was estimated for those mines which failed to report this information and for those producing material for captive use. These estimates were calculated using a countywide- or statewide-average price per ton calculated on reported FOB values.
[4]Figure not available.
[5]Thousand cubic feet.

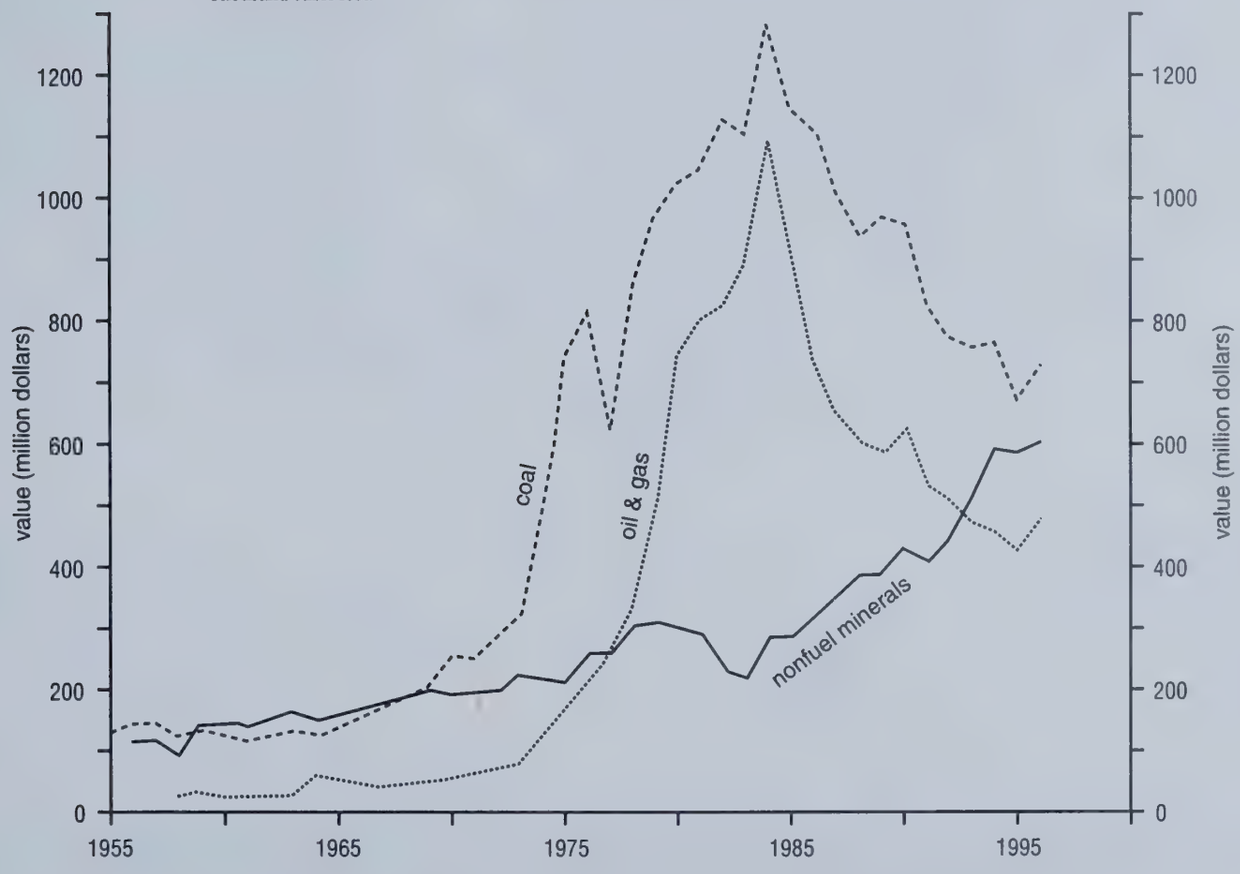


FIGURE 1.—Value of coal, nonfuel minerals, and oil and gas in Ohio.

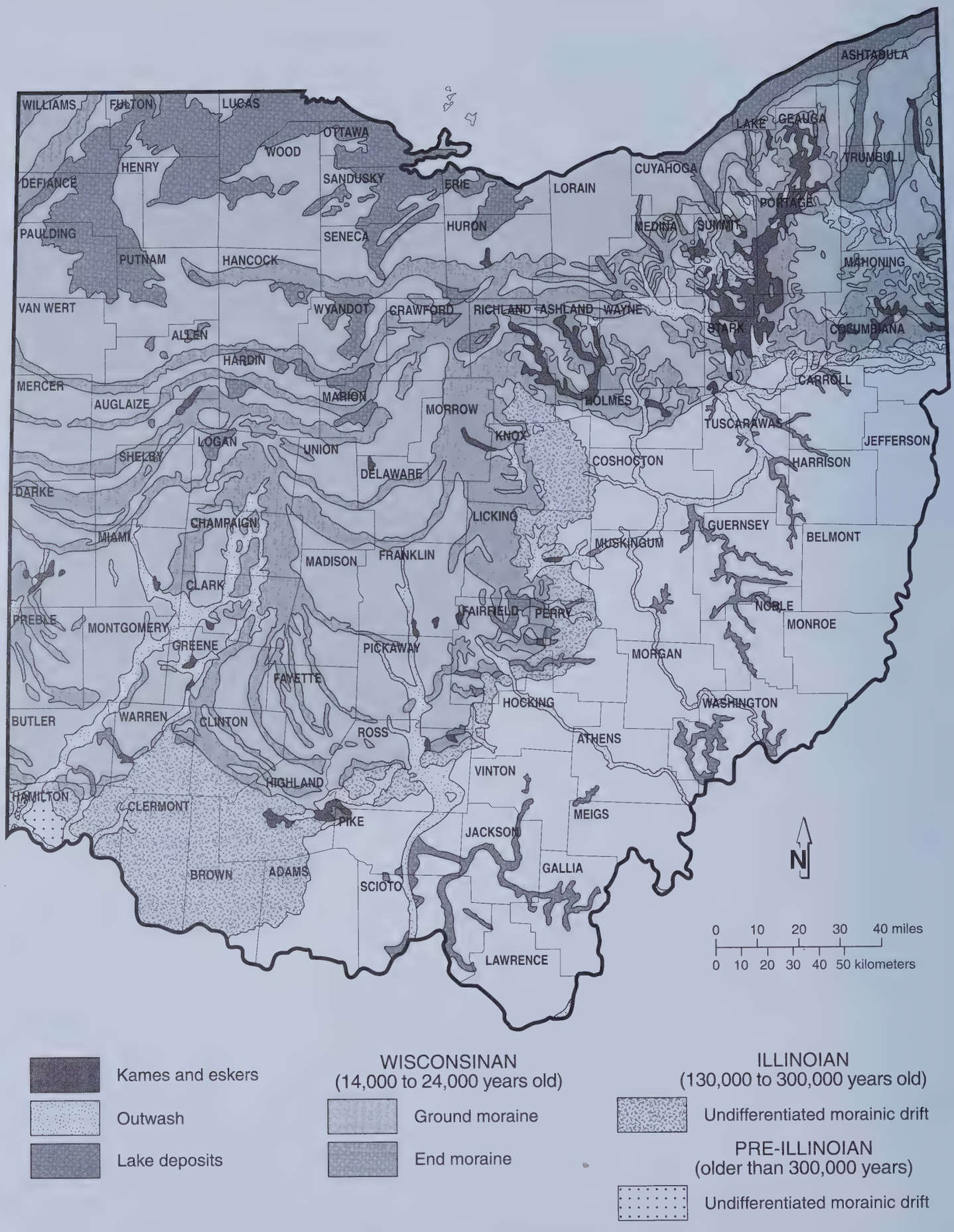


FIGURE 2.—Generalized map of the glacial deposits of Ohio. Continental glaciers advanced over the Ohio landscape several times during the Ice Age. These glaciers deposited unconsolidated materials on top of the bedrock over nearly two-thirds of the state. Most of Ohio's sand and gravel production comes from kames, eskers, and outwash, which were deposited by meltwater from the glaciers. Other glacially derived industrial minerals in Ohio include peat and clay.

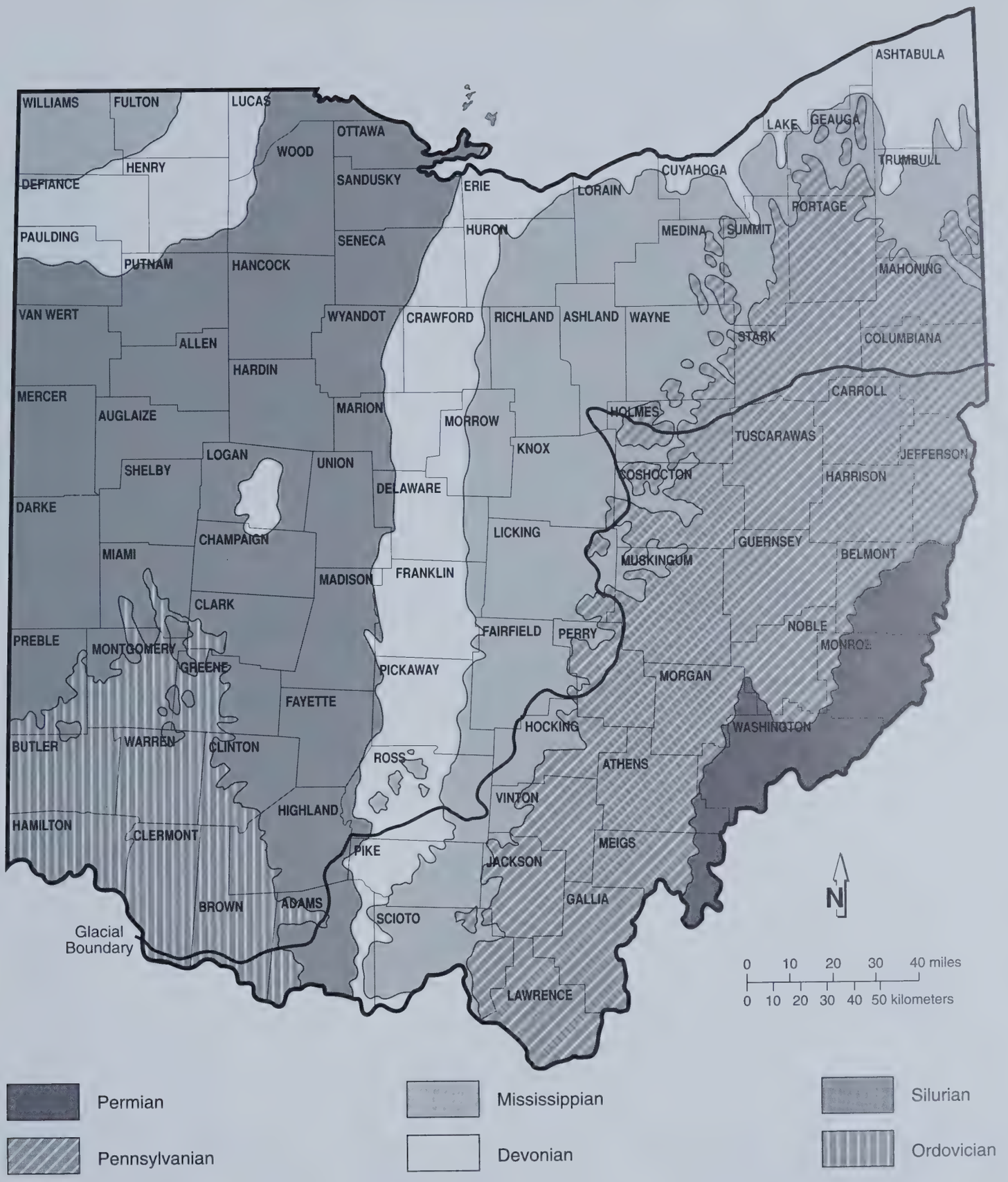


FIGURE 3.—Generalized geologic map of Ohio. Mineral production occurs throughout Ohio and from every geologic system from the Cambrian to the Permian. Coal, limestone and dolomite, sandstone and conglomerate, shale, clay, gypsum, salt, and oil and gas are produced from Ohio bedrock.

COAL

Coal was produced by 52 companies at 134 mines in 23 Ohio counties during 1996. Production increased 10.9 percent from 1995, totaling 28,323,773 tons in 1996; 12,136,149 tons (42.8 percent of total production) were produced at 124 surface mines, and 16,187,624 tons (57.2 percent of total production) were produced at 10 underground mines. Tonnage from underground production exceeded tonnage from surface production for the second year in a row, and only the second time since 1948. Of 25 coal-producing states, Ohio ranked 11th in 1996. The top five states, in descending order of production, are Wyoming (277.8 million tons), West Virginia (165.7 million tons), Kentucky (150.1 million tons), Pennsylvania (68.3 million tons), and Texas (55.3 million tons). These five states produced 67.9 percent of the nation's coal in 1996. Ohio produced 2.7 percent of the nation's coal in 1996. The top five coal-consuming states, in descending order of consumption, are Texas, Indiana, Ohio, Pennsylvania, and Illinois. These five states used 33.0 percent of the total coal consumed by all 50 states in 1996.[2]

In comparison to 1995, 14 fewer mines reported production of 50,000 tons or less, 1 fewer mine produced between 50,000 and 500,000 tons, 4 fewer mines produced between 500,000 and 1,000,000 tons, and 2 more mines reported production of 1,000,000 tons or greater. There was a net decrease of 17 mines in 1996.

The five leading counties for 1996 production were Belmont, Meigs, Vinton, Monroe, and Morgan Counties; these counties produced 66.3 percent of the 1996 total production. A total of 28,619,579 tons of coal were sold in 1996; total value[3] was $727,795,712. The average price per ton of all coal sold was $25.43; surface-mined coal averaged $24.74 per ton and underground-mined coal averaged $25.93.

In underground mining, 75.2 percent of the coal was produced by longwall mining and 24.8 percent was mined by continuous miner; no coal was produced by conventional mining in 1996. In surface operations, 93.3 percent of the coal was produced by conventional surface methods and 6.7 percent was auger mined.

The Pittsburgh (No. 8) coal was the most heavily mined seam, followed by the Clarion (No. 4A), Middle Kittanning (No. 6), Meigs Creek (No. 9), and Lower Kittanning (No. 5) seams. Coal produced from these five seams constituted 83.8 percent of the total 1996 production.

A total of 21,142,454 tons of washed coal were reported in 1996. Reports from 12 coal-washing plants indicate an average 32.8 percent loss in washing.

Trucking was the primary means of coal disposition, carrying 39.8 percent of the total sales. Conveyor belts carried 29.4 percent, and rail and water each transported 15.4 percent of the coal sold in 1996. A total of 278,973 tons (1.0 percent) of the coal produced was reported as stored.

The total average annual employment reported in 1996 was 3,448 employees; 1,914 of these were production employees. Production employees worked an average of 153 days producing coal in 1996. The average annual wage earned by all production employees was $42,260, based on those employees for whom wages were reported. The average annual wage for surface-mine production employees was $34,413, and the average annual wage for underground-mine production employees was $48,594. Wages earned by all employees totalled $156,651,937 in 1996.

[2]Information from U.S. Department of Energy, Energy Information Administration.

[3]Includes reported and estimated values. See footnote 1, p. 5.

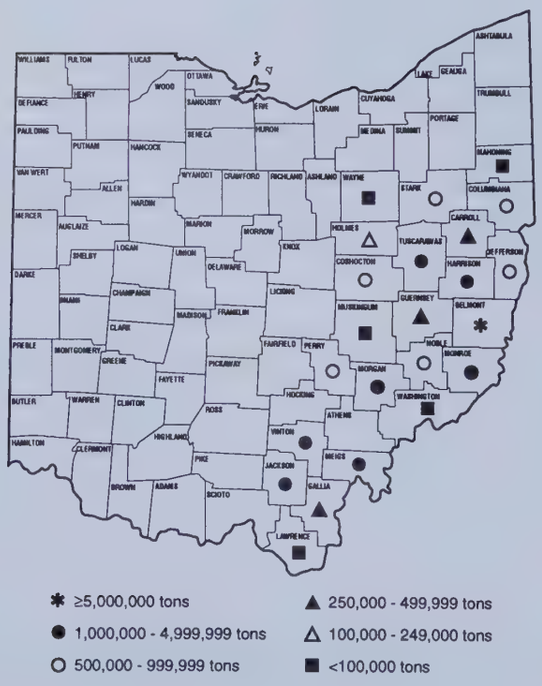


FIGURE 4.—Coal production in Ohio in 1996, by county.

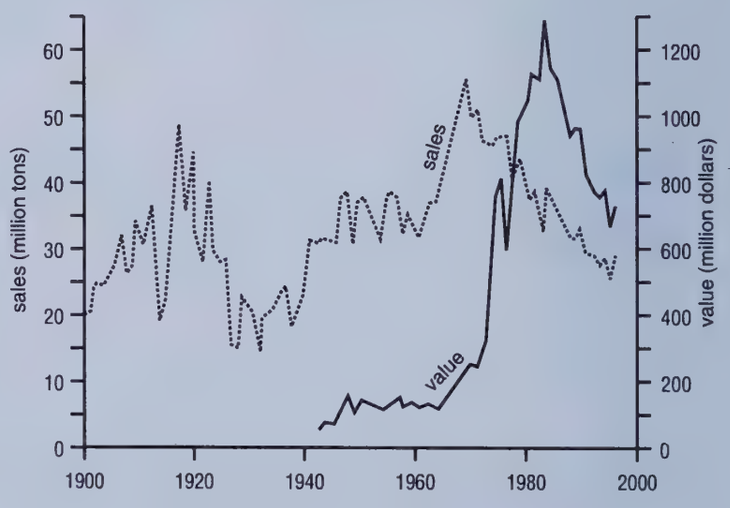


FIGURE 5.—Sales and value of coal in Ohio.

TABLE 2.—*1996 Coal production and sales by county, in descending order of production*

County	Production (tons)	Sales (tons)
Belmont	5,811,028	5,834,469
Meigs	4,447,174	4,484,421
Vinton	3,598,346	3,606,995
Monroe	3,382,895	3,686,906
Morgan	1,542,123	1,543,498
Harrison	1,394,168	1,411,504
Tuscarawas	1,321,894	1,312,458
Jackson	1,119,583	1,119,583
Perry	899,224	897,416
Noble	814,794	814,794
Columbiana	804,553	730,428
Jefferson	762,709	760,031
Coshocton	756,361	749,156
Stark	547,631	547,631
Guernsey	295,967	296,373
Gallia	268,437	268,437
Carroll	253,095	251,688
Holmes	181,390	181,390
Muskingum	55,944	55,944
Washington	54,917	54,917
Wayne	4,028	4,028
Lawrence	3,917	3,917
Mahoning	3,595	3,595
23 counties	28,323,773	28,619,579

TABLE 3.—*1996 Ohio coal production by production-size group and change from 1995*

Production-size group	1996		Change from 1995 (short tons)
	Number of mines reporting	Production (short tons)	
1,000,000 tons and over	7	17,736,482	+5,289,073
500,000 to 999,999 tons	2	1,149,509	-3,421,539
250,000 to 499,999 tons	9	2,932,093	+1,474,351
100,000 to 249,999 tons	25	3,798,952	+235,477
50,000 to 99,999 tons	19	1,445,439	-514,382
25,000 to 49,999 tons	20	756,629	-200,080
Under 25,000 tons	52	504,669	-78,062
TOTAL	134	28,323,773	+2,784,838

TABLE 4.—*1996 Ohio coal production by county and mining method*

County[1]	All methods (short tons)	Total number of mines	Underground				Surface			
			Number of underground mines reporting	Production (short tons)			Number of surface mines reporting	Production (short tons)		
				Total underground	Longwall	Continuous miner		Total surface	Strip	Auger
Belmont	5,811,028	15	1	4,741,214	3,967,484	773,730	14	1,069,814	731,056	338,758
Carroll	253,095	3					3	253,095	222,506	30,589
Columbiana	804,553	12	3	592,058		592,058	9	212,495	158,193	54,302
Coshocton	756,361	7					7	756,361	739,232	17,129
Gallia	268,437	1					1	268,437	268,437	
Guernsey	295,967	5					5	295,967	262,422	33,545
Harrison	1,394,168	11[2]	1	1,112,567		1,112,567	10[2]	281,601	262,302	19,299
Holmes	181,390	3					3	181,390	181,390	
Jackson	1,119,583	6[2]					6[2]	1,119,583	1,119,583	
Jefferson	762,709	9	2	408,278		408,278	7	354,431	266,954	87,477
Lawrence	3,917	1					1	3,917	3,917	
Mahoning	3,595	1					1	3,595	3,595	
Meigs	4,447,174	2	2	4,447,174	3,993,818	453,356				
Monroe	3,382,895	1	1	3,382,895	2,939,852	443,043				
Morgan	1,542,123	1					1	1,542,123	1,542,123	
Muskingum	55,944	2					2	55,944	49,544	6,400
Noble	814,794	6					6	814,794	814,794	
Perry	899,224	7					7	899,224	800,683	98,541
Stark	547,631	6					6	547,631	511,915	35,716
Tuscarawas	1,321,894	27[2]					27[2]	1,321,894	1,232,782	89,112
Vinton	3,598,346	6[2]	1[3]	1,503,438	1,277,525	225,913	6	2,094,908	2,094,908	
Washington	54,917	1					1	54,917	54,917	
Wayne	4,028	1					1	4,028	4,028	
TOTAL	28,323,773	134	10	16,187,624	12,178,679	4,008,945	124	12,136,149	11,325,281	810,868

[1]Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.
[2]Does not include mines extending into this county from adjoining counties.
[3]This mine extends into Vinton County from Meigs County and is not included in the total number of mines.

TABLE 5.—*1996 Ohio coal production by county and month*

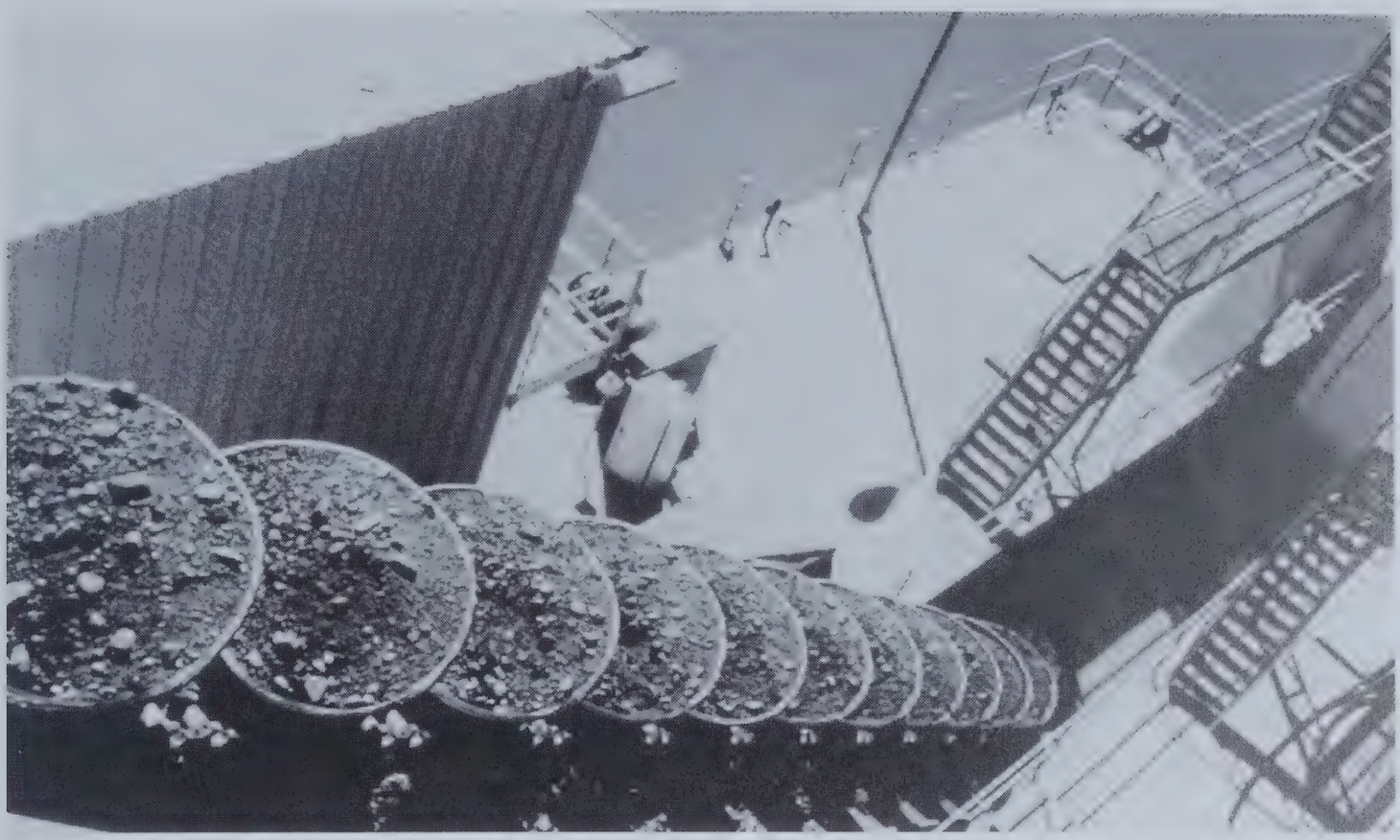
County[1]	Production (short tons)												
	Total annual	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	5,811,028	393,953	465,687	523,619	549,680	376,113	555,194	539,929	533,657	373,091	586,692	515,222	398,191
Carroll	253,095	24,751	22,617	24,800	25,584	23,928	16,173	18,030	19,581	21,930	18,846	19,523	17,332
Columbiana	804,553	84,619	73,185	52,417	56,013	46,911	69,556	63,333	71,046	64,623	87,242	64,392	71,216
Coshocton	756,361	76,547	69,292	79,023	75,681	63,899	62,375	66,558	74,247	55,239	52,223	45,440	35,837
Gallia	268,437	17,375	24,475	22,904	22,182	23,068	20,349	18,701	23,885	25,874	23,556	20,993	25,075
Guernsey	295,967	18,726	13,804	23,407	14,911	7,513	18,636	14,525	26,097	41,066	36,167	34,148	46,967
Harrison	1,394,168	129,917	130,671	131,471	111,405	107,941	107,208	84,388	120,346	92,669	118,158	131,717	128,277
Holmes	181,390	38,503	13,392	0	28,119	7,165	2,031	28,286	7,072	9,938	26,678	18,831	1,375
Jackson	1,119,583	78,307	79,424	71,397	92,713	70,504	103,399	100,634	105,723	109,072	112,900	98,760	96,750
Jefferson	762,709	70,888	70,048	54,937	57,015	59,314	61,473	54,694	63,568	59,224	70,677	71,167	69,704
Lawrence	3,917	28	9	237	165	210	0	283	978	629	933	423	22
Mahoning	3,595	1,722	1,873	0	0	0	0	0	0	0	0	0	0
Meigs	4,447,174	494,205	292,511	264,262	410,439	551,309	354,491	477,179	342,529	139,159	289,428	465,233	366,429
Monroe	3,382,895	240,861	288,701	346,007	314,501	351,809	197,018	224,962	324,436	275,969	325,393	236,991	256,247
Morgan	1,542,123	129,842	142,334	132,587	158,929	60,315	114,414	108,541	75,545	160,909	189,873	132,525	136,309
Muskingum	55,944	3,173	3,627	3,970	3,220	4,294	3,156	2,757	3,848	2,742	3,416	3,601	18,140
Noble	814,794	73,095	71,918	77,342	51,813	52,110	69,189	62,986	77,553	63,888	71,987	76,100	66,813
Perry	899,224	57,744	56,400	56,424	59,621	58,359	78,955	77,364	87,054	75,357	92,833	94,457	104,656
Stark	547,631	19,714	41,190	67,516	36,441	38,901	58,732	28,695	42,480	62,639	42,184	42,280	66,859
Tuscarawas	1,321,894	164,056	109,904	96,740	131,352	86,629	72,122	139,075	92,937	93,734	153,215	91,878	90,252
Vinton	3,598,346	311,580	308,038	317,261	347,239	373,151	276,732	313,676	237,704	191,328	289,711	339,772	292,154
Washington	54,917	7,926	6,307	5,039	3,088	5,513	2,695	9,960	490	6,960	959	1,944	4,036
Wayne	4028	2,800	1,228	0	0	0	0	0	0	0	0	0	0
TOTAL	28,323,773	2,440,332	2,286,635	2,351,360	2,550,111	2,368,956	2,243,898	2,434,556	2,330,776	1,926,040	2,593,071	2,505,397	2,292,641

[1]Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 6.—*1996 Ohio coal production*

County[1]	Production								
	Total	Sharon (No. 1)	Lower Mercer (No. 3)	Upper Mercer (No. 3A)	Brookville (No. 4)	Winters	Clarion (No. 4A)	Lower Kittanning (No. 5)	Strasburg (No. 5A)
Belmont	5,811,028								
Carroll	253,095							19,641	
Columbiana	804,553				18,781			21,637	
Coshocton	756,361							155,488	
Gallia	268,437								
Guernsey	295,967							79,526	
Harrison	1,394,168								
Holmes	181,390				13,344			84,023	
Jackson	1,119,583	23,540	208,517				267,732	381,039	
Jefferson	762,709								
Lawrence	3,917				3,917				
Mahoning	3,595				3,595				
Meigs	4,447,174						4,447,174		
Monroe	3,382,895								
Morgan	1,542,123								
Muskingum	55,944								
Noble	814,794								
Perry	899,224							221,245	
Stark	547,631				141,432			91,172	
Tuscarawas	1,321,894			67,744	32,018			236,631	4,533
Vinton	3,598,346		226,160	19,593	96,556	329,462	1,963,894	484,734	
Washington	54,917								
Wayne	4,028							2,014	
TOTAL	28,323,773	23,540	434,677	87,337	309,643	329,462	6,678,800	1,777,150	4,533

[1]Production from mines operating in more than one county was evenly split between the counties involved unless a by-county breakdown was provided by the operator.



Bucket ladder bringing up raw material feed at Olen Corporation's Columbus Plant #3, Franklin County. Photo courtesy of Gregg Webb, plant manager.

by county and seam

(short tons)

Middle Kittanning (No. 6)	Lower Freeport (No. 6A)	Upper Freeport (No. 7)	Mahoning (No. 7A)	Harlem	Pittsburgh (No. 8)	Pomeroy-Redstone (No. 8A)	Meigs Creek (No. 9)	Waynesburg (No. 11)	County
					5,007,124		707,498	96,406	Belmont
19,642	19,641		164,757	29,414					Carroll
87,211		233,406	443,518						Columbiana
600,873									Coshocton
257,547	10,890								Gallia
159,779		56,662							Guernsey
	1,112,567				122,089	68,034	91,478		Harrison
84,023									Holmes
228,812	9,943								Jackson
			408,278		328,303	26,128			Jefferson
									Lawrence
									Mahoning
									Meigs
					3,382,895				Monroe
							1,542,123		Morgan
34,877	21,067								Muskingum
							814,794		Noble
553,513	116,508	7,958							Perry
300,799	14,228								Stark
620,736	47,892	312,340							Tuscarawas
276,532		201,415							Vinton
							54,917		Washington
2,014									Wayne
3,226,358	1,352,736	811,781	1,016,553	29,414	8,840,411	94,162	3,210,810	96,406	TOTAL

TABLE 7.—*1996 Disposition of Ohio coal, by county*

County[1]	Number of mines	Disposition[1] (short tons)						Stored
		Total[2]	Rail	Water	Truck	Conveyor	Unspecified/ other	
Belmont	15	5,834,469	3,846,104	503,470	1,484,895			29,867
Carroll	3	251,688	10,353		241,335			
Columbiana	12	730,428			730,428			570
Coshocton	7	749,156	8,223		740,933			6,088
Gallia	1	268,437		28,307	56,579	183,551		
Guernsey	5	296,373			296,373			
Harrison	11[3]	1,411,504	470,573	58,675	882,256			3,888
Holmes	3	181,390			181,390			
Jackson	6[3]	1,119,583		37,657	837,739	244,187		
Jefferson	9	760,031		18,382	741,649			2,678
Lawrence	1	3,917			3,917			
Mahoning	1	3,595			3,595			
Meigs	2	4,484,421				4,484,421		
Monroe	1	3,686,906		3,686,906				229,249
Morgan	1	1,543,498				1,543,496	2	
Muskingum	2	55,944			55,944			
Noble	6	814,794			814,794			
Perry	7	897,416			897,416			6,633
Stark	6	547,631			547,631			
Tuscarawas	27[3]	1,312,458	69,435		1,243,023			
Vinton	6[3]	3,606,995		68,402	1,582,965	1,955,628		
Washington	1	54,917			54,917			
Wayne	1	4,028			4,028			
TOTAL	134	28,619,579	4,404,688	4,401,799	11,401,807	8,411,283	2	278,973

[1]Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved and type(s) of disposition reported unless a by-county breakdown was provided by the operator.
[2]Does not reflect tonnage stored. Reflects tonnage sold and shipped from mine.
[3]Does not include mines extending into this county from adjoining counties.

TABLE 8.—*1996 Rail shipments of Ohio coal, by county of origin and carrier*

County[1]	Number of mines	Shipments (short tons)			
		Total	Conrail	Ohio Central	Wheeling & Lake Erie
Belmont	1	3,846,104	3,846,104		
Carroll	1	10,353		10,353	
Coshocton	1	8,223		8,223	
Harrison	2	470,573		118	470,455
Tuscarawas	7[2]	69,435		69,435	
TOTAL	12	4,404,688	3,846,104	88,129	470,455

[1]Tonnage of coal shipped from mines operating in more than one county was evenly split between the counties involved.
[2]Does not include mines extending into this county from adjoining counties.

TABLE 9.—*1996 Washed Ohio coal*

		Raw coal (short tons)	Washed coal[1] (short tons)	Loss in washing (short tons)	Loss in washing (percent)	Percent of all washed coals
By type of mining	From surface mines	6,319,668	5,390,569[2]	929,099	14.7	26.8
	From underground mines	23,633,426	14,751,885	8,881,541	37.6	73.2
	TOTAL	29,953,094	20,142,454	9,810,640	32.8	100.0
By seam	Sharon (No. 1)	31,835	23,540	8,295	26.1	0.1
	Lower Mercer (No. 3A)	45,594	37,843	7,751	17.0	0.2
	Brookville (No. 4)	16,972	14,086	2,886	17.0	0.1
	Winters	433,553	329,435	104,118	24.0	1.6
	Clarion (No. 4A)	10,947,062	6,186,072	4,760,990	43.5	30.7
	Lower Kittanning (No. 5)	2,604,818	2,232,260	372,558	14.3	11.1
	Middle Kittanning (No. 6)	454,624	414,334	40,290	8.9	2.1
	Lower Freeport (No. 6A)	707,832	591,135	116,697	16.5	2.9
	Upper Freeport (No. 7)	158,427	111,624	46,803	29.5	0.6
	Pittsburgh (No. 8)	12,175,506	8,160,755	4,014,751	33.0	40.5
	Meigs Creek (No. 9)	2,184,735	1,894,235	290,500	13.3	9.4
	Waynesburg (No. 11)	160,363	122,275	38,088	23.8	0.6
	Other[3]	31,773[2]	24,860[2]	6,913	21.8	0.1
	TOTAL	29,953,094	20,142,454	9,810,640	32.8	100.0

[1]Total washed coal figures for 1996 reflect figures as reported by Ohio's coal preparation plants. These figures do not necessarily represent only 1996 production. In 1996, 28,323,773 tons of coal were produced, of which 18,319,495 tons (64.7%) were reported as washed by Ohio's mine operators. Coal not designated as washed or unwashed by Ohio's mine operators was assumed to be unwashed.

[2]The raw tonnage (before washing) and/or the clean tonnage (after washing) of coal was estimated for those mines which failed to report this information. These estimates were calculated using a statewide-average loss-in-washing percentage based on raw/washed coal values for type of mining and for seam deemed to be reliable.

[3]Unspecified tonnage of seams listed above.

TABLE 10.—*1996 Dollar value of coal at mine by county and mining method*

County[1]	Total				Underground				Surface			
	No. of mines	Tonnage sold (short tons)	Value at mine[2] (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine[2] (dollars)	Per ton average (dollars)	No. of mines	Tonnage sold (short tons)	Value at mine[2] (dollars)	Per ton average (dollars)
Belmont	15	5,834,469	$120,149,137	$20.59	1	4,744,134	$95,311,549	$20.09	14	1,090,335	$24,837,588	$22.78
Carroll	3	251,688	6,478,615	25.74					3	251,688	6,478,615	25.74
Columbiana	12	730,428	14,251,559	19.51	3	518,932	9,801,878	18.89	9	211,496	4,449,681	21.04
Coshocton	7	749,156	19,910,764	26.58					7	749,156	19,910,764	26.58
Gallia	1	268,437	6,353,904	23.67					1	268,437	6,353,904	23.67
Guernsey	5	296,373	7,046,399	23.78					5	296,373	7,046,399	23.78
Harrison	11[3]	1,411,504	29,416,368	20.84	1	1,129,917	23,937,305	21.19	10[3]	281,587	5,479,063	19.46
Holmes	3	181,390	3,270,000	18.03					3	181,390	3,270,000	18.03
Jackson	6[3]	1,119,583	26,500,530	23.67					6[3]	1,119,583	26,500,530	23.67
Jefferson	9	760,031	16,020,173	21.08	2	408,278	10,399,541	25.47	7	351,753	5,620,632	15.98
Lawrence	1	3,917	44,395	11.33					1	3,917	44,395	11.33
Mahoning	1	3,595	68,304	19.00					1	3,595	68,304	19.00
Meigs	2	4,484,421	159,914,452	35.66	2	4,484,421	159,914,452	35.66				
Monroe	1	3,686,906	74,239,693	20.14	1	3,686,906	74,239,693	20.14				
Morgan	1	1,543,498	65,475,185	42.42					1	1,543,498	65,475,185	42.42
Muskingum	2	55,944	1,540,129	27.53					2	55,944	1,540,129	27.53
Noble	6	814,794	13,387,400	16.43					6	814,794	13,387,400	16.43
Perry	7	897,416	22,202,072	24.74					7	897,416	22,202,072	24.74
Stark	6	547,631	9,111,465	16.64					6	547,631	9,111,465	16.64
Tuscarawas	27[3]	1,312,458	27,905,734	21.26					27[3]	1,312,458	27,905,734	21.26
Vinton	6[3]	3,606,995	103,507,495	28.70	1[4]	1,512,087	53,921,023	35.66	6[3]	2,094,908	49,586,472	23.67
Washington	1	54,917	902,286	16.43					1	54,917	902,286	16.43
Wayne	1	4,028	99,653	24.74					1	4,028	99,653	24.74
TOTAL	134	28,619,579	$727,795,712	$25.43	10	16,484,675	$427,525,441	$25.93	124	12,134,904	$300,270,271	$24.74

[1]Sales reported from mines operating in more than one county were evenly split between the counties involved unless a by-county breakdown was provided by the operator.

[2]The FOB value of coal sold was estimated for those mines which failed to report this information. These estimates were calculated using a countywide-average price per ton by mining method based on reported FOB values deemed to be reliable.

[3]Does not include mines extending into this county from adjoining counties.

[4]This mine extends into Vinton County from Meigs County and is not included in the total number of mines.

TABLE 11.—*1996 Ohio coal-mine employment[1], by occupational group and month*

Occupational group	Number of employees												
	Total annual	January	February	March	April	May	June	July	August	September	October	November	December
All production workers	1,914	1,894	1,886	1,920	1,908	1,909	1,883	1,902	1,915	1,904	1,927	1,954	1,961
Underground mines	1,059	1,036	1,029	1,057	1,052	1,075	1,057	1,060	1,055	1,045	1,070	1,088	1,083
Surface mines	855	858	857	863	856	834	826	842	860	859	857	866	878
Supervisory, technical, and clerical	675	666	672	669	676	676	662	681	678	675	675	678	687
Central preparation plant, central shop, etc.	562	558	554	553	559	562	561	569	564	570	564	564	568
Reclamation	88	84	78	78	95	89	82	88	93	96	103	92	82
Other[2]	209	201	210	203	203	212	202	212	208	216	216	212	212
TOTAL	3,448	3,403	3,400	3,423	3,441	3,448	3,390	3,452	3,458	3,461	3,485	3,500	3,510

[1]Employment was estimated for mines not reporting employment.
[2]"Other" includes all employees who are not categorized in any other employment category, such as mobile equipment operators, mechanics, or general outside workers.

TABLE 12.—*1996 Ohio coal-mine production employment[1], by county and month*

County[2]	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	259	236	230	246	253	242	260	265	274	268	276	281	282
Carroll	25	30	28	29	31	26	26	23	23	23	22	21	21
Columbiana	87	91	92	108	88	110	79	79	78	78	79	82	84
Coshocton	64	69	77	74	73	74	72	67	57	60	47	48	47
Gallia	12	10	10	12	13	13	13	10	11	10	10	16	16
Guernsey	38	29	26	25	29	24	24	31	46	48	56	56	61
Harrison	110	122	120	117	108	107	107	105	96	99	110	113	116
Holmes	15	15	15	15	15	15	15	15	15	14	14	14	14
Jackson	90	94	94	94	91	92	92	89	89	87	86	86	86
Jefferson	97	93	93	94	95	98	99	99	100	98	98	96	98
Lawrence	1	1	1	1	1	1	1	1	1	1	1	1	1
Mahoning	1	1	1	1	1	1	1	0	0	0	0	0	0
Meigs	329	333	331	329	328	329	328	328	327	326	327	331	330
Monroe	223	220	221	222	222	222	222	223	222	223	224	225	225
Morgan	41	41	41	40	40	40	41	40	40	41	41	41	41
Muskingum	15	15	15	15	13	14	13	13	13	13	11	20	25
Noble	48	43	46	48	47	47	45	49	51	48	51	53	48
Perry	63	55	53	55	58	60	68	68	67	67	70	71	69
Stark	56	54	53	53	59	58	57	55	54	54	55	58	58
Tuscarawas	114	121	120	129	113	109	108	116	116	111	115	107	108
Vinton	221	214	213	209	225	222	204	222	231	228	229	228	228
Washington	4	6	5	3	4	4	7	3	3	6	4	5	2
Wayne	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	1,914	1,894	1,886	1,920	1,908	1,909	1,883	1,902	1,915	1,904	1,927	1,954	1,961

[1]Employment was estimated for mines not reporting employment.
[2]For those operattions reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 13.—*1996 Ohio coal-mine employment[1] in central preparation plants, central shops, etc., by county and month*

County[2]	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	45	55	48	48	46	46	44	43	41	43	43	42	45
Columbiana	32	33	34	32	32	32	32	32	32	32	32	32	32
Coshocton	29	28	30	31	29	28	30	29	29	29	29	28	28
Guernsey	2	2	2	2	2	2	2	2	2	2	2	2	2
Harrison	17	17	17	17	17	17	19	19	19	16	16	16	16
Jackson	13	12	12	12	13	13	13	14	14	14	13	13	13
Jefferson	13	13	13	13	13	13	13	13	13	13	13	12	12
Mahoning	7	7	7	7	7	7	7	7	7	7	7	7	7
Meigs	65	66	65	65	65	65	65	65	65	64	65	66	67
Monroe	58	57	57	57	57	57	57	58	58	58	58	58	58
Morgan	81	80	80	82	81	81	82	81	80	83	80	81	81
Perry	12	12	12	12	12	12	12	12	12	12	12	13	13
Scioto	17	16	16	16	16	17	17	17	17	17	17	17	17
Tuscarawas	47	46	48	47	47	47	47	47	47	48	46	46	46
Vinton	124	114	113	112	122	125	121	130	128	132	131	131	131
TOTAL	562	558	554	553	559	562	561	569	564	570	564	564	568

[1]Employment was estimated for mines not reporting employment.
[2]For those operattions reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 14.—*1996 Ohio coal-mine employment[1] in supervisory, technical, and clerical positions, by county and month*

County[2]	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	130	129	128	128	133	133	126	128	126	129	129	133	133
Carroll	8	7	7	7	7	7	6	8	9	8	8	8	9
Columbiana	22	22	22	22	21	21	21	22	22	22	22	22	22
Coshocton	28	29	29	28	29	29	29	27	27	27	27	27	27
Guernsey	5	2	3	2	3	3	3	5	6	6	7	7	8
Harrison	13	14	13	13	15	15	14	13	12	12	12	12	12
Holmes	3	3	3	3	3	3	3	3	3	3	3	3	3
Jackson	19	20	19	20	18	19	18	18	18	18	20	20	20
Jefferson	20	20	20	19	20	19	19	19	20	23	21	19	20
Mahoning	3	3	3	3	3	3	3	3	3	3	3	3	3
Meigs	141	140	143	141	141	141	142	142	142	138	139	140	140
Monroe	67	62	67	66	67	67	67	68	69	69	68	68	69
Morgan	48	49	49	48	48	48	48	48	48	48	48	48	48
Muskingum	2	2	2	2	2	2	2	2	2	2	2	3	4
Noble	6	6	5	6	6	6	6	7	7	7	7	7	7
Perry	5	5	5	5	5	5	5	5	5	5	5	5	6
Scioto	9	9	9	9	9	9	9	9	9	9	9	9	9
Stark	8	7	7	7	8	8	8	8	8	9	9	9	9
Tuscarawas	37	37	37	40	37	39	37	43	39	36	35	34	35
Vinton	100	99	100	99	100	98	95	102	102	100	100	100	102
Washington	1	1	1	1	1	1	1	1	1	1	1	1	1
TOTAL	675	666	672	669	676	676	662	681	678	675	675	678	687

[1]Employment was estimated for mines not reporting employment.
[2]For those operattions reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 15.—*1996 Ohio surface coal-mine reclamation employment[1], by county and month*

County[2]	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	6	7	6	7	7	6	6	7	8	5	5	5	5
Carroll	5	3	2	3	5	4	4	6	8	6	5	5	5
Columbiana	4	3	3	3	4	4	4	4	4	5	5	5	5
Coshocton	3	4	2	1	2	1	1	1	1	1	11	10	4
Guernsey	1	1	2	1	1	3	3	4	0	0	0	0	0
Harrison	3	3	2	2	3	4	3	2	3	2	3	3	4
Jefferson	11	11	10	8	14	8	11	10	13	17	12	12	11
Mahoning	1	0	0	0	1	1	1	2	2	2	1	0	0
Morgan	38	36	35	35	37	38	38	38	38	41	43	43	39
Stark	1	0	0	0	2	2	2	2	2	0	0	0	0
Tuscarawas	12	10	9	10	11	10	9	12	14	17	18	9	9
Vinton	3	6	7	8	8	8	0	0	0	0	0	0	0
TOTAL	88	84	78	78	95	89	82	88	93	96	103	92	82

[1]Employment was estimated for mines not reporting employment.
[2]For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 16.—*1996 Ohio coal-mine employment[1] in other positions[2], by county and month*

County[3]	Number of employees												
	Monthly average	January	February	March	April	May	June	July	August	September	October	November	December
Belmont	77	74	83	74	70	78	76	77	74	82	83	79	79
Columbiana	4	3	3	5	4	6	4	4	4	4	4	4	4
Coshocton	3	3	3	3	3	3	3	3	3	3	3	3	3
Harrison	26	26	26	26	26	26	26	26	26	26	26	26	26
Jackson	13	13	13	13	15	14	14	14	14	14	11	11	11
Meigs	32	31	32	31	32	31	32	31	32	31	32	31	32
Morgan	11	11	11	11	12	12	11	11	10	10	10	10	10
Muskingum	2	1	1	1	2	2	2	2	2	2	2	2	2
Perry	2	2	2	2	2	2	2	2	2	2	2	2	2
Scioto	3	3	3	3	3	3	3	3	3	3	3	3	3
Stark	2	2	2	2	2	2	2	2	2	2	2	2	2
Vinton	34	32	31	32	32	33	27	37	36	37	38	39	38
TOTAL	209	201	210	203	203	212	202	212	208	216	216	212	212

[1]Employment was estimated for mines not reporting employment.
[2]"Other positions" includes all employees who do not belong in any other employment category, such as mobile equipment operators, mechanics, or general outside workers.
[3]For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties involved unless a by-county breakdown was provided by the operator.

TABLE 17.—*1996 Wage and salary payments to Ohio coal-mine employees, by county and occupational group*

County[1]	Wage and salary payments (nearest whole dollar)[2]						
	All occupations	Underground production employees	Surface production employees	Central preparation plant, central shop, etc.	Supervisory, technical, and clerical	Reclamation	Other
Belmont	$26,222,972	$10,032,281	$1,933,102	$2,004,030	$8,126,125	$172,076	$3,955,358
Carroll	811,211		553,683		171,982	85,546	
Columbiana	4,937,861	2,423,229	748,061	1,004,369	622,384	58,042	81,776
Coshocton	5,208,102		2,546,690	1,071,541	1,339,435	103,346	147,090
Gallia	481,378		481,378				
Guernsey	1,353,030		1,041,885	47,267	252,833	11,045	
Harrison	7,327,866	3,474,114	1,049,065	863,216	826,275	40,014	1,075,182
Holmes	685,313		506,987		178,326		
Jackson	5,064,201		3,211,100	448,167	896,519		508,415
Jefferson	3,556,011	1,364,906	992,215	189,107	695,007	314,776	
Lawrence	41,817		34,413				7,404
Mahoning	298,381		19,769	185,460	73,290	19,862	
Meigs	30,433,943	16,364,918		3,089,644	9,419,613		1,559,768
Monroe	19,589,709	11,983,617		3,358,347	4,247,745		
Morgan	10,419,725		1,702,018	3,390,084	3,269,855	1,607,849	449,919
Muskingum	710,997		550,995		66,504		93,498
Noble	3,682,752		3,251,651		431,101		
Perry	2,405,060		1,807,859	319,817	183,886		93,498
Scioto	1,177,000			562,000	411,000		204,000
Stark	2,184,807		1,775,585	5,250	293,416	24,531	86,025
Tuscarawas	6,265,331		3,439,291	1,413,177	1,183,077	229,786	
Vinton	23,439,347	5,818,094	3,478,445	5,178,859	7,378,968	76,381	1,508,600
Washington	320,710		264,934		55,776		
Wayne	34,413		34,413				
TOTAL	$156,651,937	$51,461,159	$29,423,539	$23,130,335	$40,123,117	$2,743,254	$9,770,533

[1]For those operations reporting activity in more than one county, wage and salary payments were evenly split between the counties involved unless a by-county breakdown was provided by the operator.

[2]For those operations reporting only a total wage and salary payment to all workers, an equal pay rate was assumed for all employees. In cases where quarterly employment was reported but wage and salary payments were not, wage and salary payments for that quarter were estimated from reported payments in the other quarters to arrive at the annual figure. For mines reporting employment and no wage and salary payments, wage and salary payments were estimated using a countywide or statewide average.

Stock-out system of Olen Corporation's Columbus Plant #3, Franklin County, showing tripper car discharging raw feed. The tripper car has six set positions where it builds surge piles. The surge piles are gravity fed onto the discharge conveyor in the underground tunnel where the raw material is carried to the plant for separation by size. Photo courtesy of Gregg Webb, plant manager.

INDUSTRIAL MINERALS

Industrial minerals, other than mineral fuels, were produced in a total of 87 Ohio counties in 1996. The combined value of all nonfuel industrial minerals sold in 1996 was $606,858,500.

In 1996, 441 companies operated 677 industrial-mineral mining operations. Industrial minerals were produced or sold by 342 companies from 495 active operations. Forty-three of the 342 companies produced more than one mineral commodity from 54 operations. Fifteen of these companies produced coal and one or more industrial-mineral commodity from 22 operations. Twenty-eight companies produced multiple industrial-mineral commodities (no coal) from 32 operations. The remaining 299 companies produced one industrial-mineral commodity.

Of the 44 multiple industrial-mineral operations (including those operations producing coal and more than one industrial-mineral commodity), 9 operations produced clay and shale; 8 operations produced sand and gravel and clay; 5 operations produced limestone and clay; 4 operations produced sandstone and sand and gravel; 4 operations produced limestone and shale; 3 operations produced sand and gravel and limestone; 2 operation produced limestone, clay, and shale; 2 operations produced sand and gravel, clay, and peat; 2 operations produced sand and gravel and shale; 1 operation produced sandstone, clay, and shale; 1 operation produced limestone, sand and gravel, and clay; 1 operation produced sandstone and clay; 1 operation produced sand and gravel, sandstone, and clay; and 1 operation produced limestone, sandstone, clay, and shale.

The 249 multiple industrial-mineral-commodity production employees worked an average of 202 days in 1996. Total wages of $12,013,107 were paid to a total of 459 employees (249 production employees and 210 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $26,172.

The total average annual employment reported in 1996 for industrial mineral operations was 5,369 people (3,398 production employees and 1,971 nonproduction employees). Total wages for all employees at industrial mineral operations in 1996 were $174,775,824. The average annual wage, based on those employees for whom wages were reported, was $32,553.

TABLE 18.—*1996 Value of Ohio industrial minerals*

Commodity	Sales (tons)	Change from 1995 (tons/percent)	Value[1] (dollars)	Percent of total value
Limestone and dolomite	69,431,223	+1,863,526/+2.8	$288,640,762	47.6
Sand and gravel	52,092,243	+1,451,834/+2.9	$204,846,796	33.7
Salt	5,169,757	+1,137,120/+28.2	$56,928,065	9.3
Sandstone and conglomerate	1,808,816	+25,508/+1.4	$36,268,331	6.0
Clay	1,983,225	+360,412/+22.2	$12,791,571	2.1
Shale	1,357,276	-411,256/-23.3	$4,748,461	0.8
Gypsum	267,692	+18,973/+7.6	$2,543,074	0.4
Peat	7,923	-10,634/-57.3	$91,440	<0.1
TOTAL	132,118,155	+4,435,483/+3.5	$606,858,500	100.0

[1]The FOB value of industrial minerals sold was estimated for those mines which failed to report this information and for those producing material for captive use. These estimates were calculated using a countywide- or statewide-average price per ton based on reported FOB values.

Top photo: tripper car at end of discharge conveyor distributing raw feed onto surge piles. Bottom photo: discharge conveyor. Olen Corporation's Columbus Plant #3, Franklin County. Photo courtesy of Gregg Webb, plant manager.

TABLE 19.—*1996 Employment at Ohio industrial mineral operations, by county and commodity*

County[1]	Total employees	Number of employees[2]																			
		Total		Limestone and dolomite		Sand and gravel		Sandstone and conglomerate		Clay		Shale		Salt		Gypsum		Peat		Multiple commodities	
		Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production	Production	Non production
Adams	54	46	8	46	8																
Allen	36	24	12	21	12	3	0														
Ashland	16	13	3			13	2					0	1								
Ashtabula	24	16	8			14	2													2	6
Athens	32	17	15			5	12			6	1									6	2
Auglaize	27	22	5	13	4	8	1			1	0										
Belmont	25	18	7	8	2	3	2													7	3
Brown	10	9	1	9	1																
Butler	98	75	23			75	23														
Carroll	6	3	3			3	3														
Champaign	18	14	4			14	4											[3]	[3]		
Clark	148	53	95	4	75	49	20														
Clermont	19	10	9			10	9													28	29
Clinton	63	33	30			5	1													5	1
Columbiana	35	27	8			10	2	2	0	9	0	1	5								
Coshocton	49	20	29	1	1	8	20	9	6	1	1	1	1								
Crawford	44	44	0	43	0	1	0														
Cuyahoga	306	176	130			2	0					3	27	171	103						
Darke	12	10	2	2	1	8	1														
Defiance	1	1	0			1	0														
Delaware	60	55	5	55	5																
Erie	157	69	88	59	85	[4]	[4]	4	1												
Fairfield	18	12	6			11	6													1	0
Fayette	15	11	4	11	4															11	1
Franklin	214	174	40	70	11	93	28														
Fulton	5	4	1			4	1														
Gallia	21	12	9			12	9														
Geauga	105	36	69			18	4	14	62											4	3
Greene	182	78	104	15	81	58	21			5	2										
Guernsey	9	5	4	5	4																
Hamilton	201	114	87			107	87													7	0
Hancock	29	29	0	29	0																
Hardin	13	10	3	10	3																
Harrison	7	4	3	3	0							1	3								
Henry[5]	0	0	0																		
Highland	76	38	38	38	38																
Hocking	63	12	51			12	30													0	21
Holmes	29	19	10			13	9			1	0									5	1
Huron	10	8	2			7	2	1	0												
Jackson	20	13	7	5	1					3	5									5	1
Jefferson	3	3	0	3	0																
Knox	75	46	29			18	27					0	1							28	1
Lake	236	123	113			[4]	[4]	4	0					109	89						
Lawrence	8	7	1	1	0	6	1														
Licking	35	26	9			24	6					1	2	1	1						

Logan	63	34	29	25	23	9	6															
Lorain	8	6	2			1	0	5	2													
Lucas	67	51	16	43	14	2	1														6	1
Madison	6	4	2			4	2															
Mahoning	53	44	9	17	3	1	1	1	0												25	5
Marion	61	53	8	36	4	14	3					3	1									
Medina	46	36	10			35	9					1	1									
Meigs	41	34	7			34	7															
Mercer	16	12	4	12	4																	
Miami	68	53	15	36	12	17	3															
Monroe	10	8	2	8	2																	
Montgomery	77	53	24	13	4	35	18			5	2											
Morgan	15	10	5	2	1	8	4															
Morrow	9	7	2			7	2															
Muskingum	98	78	20	59	15	16	4			2	0	0	1								1	0
Noble	10	8	2	3	0							0	1								5	1
Ottawa	127	96	31	80	18					3	12					13	1					
Paulding	153	40	113	26	5																14	108
Perry	68	64	4	13	3			48	1	1	0										2	0
Pickaway	29	23	6	8	2	15	4															
Pike	42	24	18	5	6	13	4	5	8												1	0
Portage	167	113	54			100	51													[3]	[3]	13	3
Preble	36	27	9	10	2	16	6														1	1
Putnam	13	9	4	9	4																	
Richland	21	14	7			13	5					1	2									
Ross	41	21	20			21	17	0	3													
Sandusky	349	248	101	248	101																	
Scioto	29	20	9			17	7	3	2													
Seneca	87	67	20	67	20																	
Shelby	32	25	7	16	4	9	3															
Stark	138	112	26			90	19			5	3										17	4
Summit	179	22	157			18	8							2	147						2	2
Trumbull	13	4	9			4	9															
Tuscarawas	123	80	43			35	22	3	1	13	6	2	5								27	9
Union	36	29	7	29	7																	
Van Wert	27	21	6	21	6																	
Vinton	7	7	0	7	0																	
Warren	40	31	9			31	9															
Washington	12	7	5			7	5															
Wayne	61	47	14			19	2					0	1	12	5						16	6
Williams	42	18	24			18	24													[3]	[3]	
Wood	53	40	13	30	12																10	1
Wyandot	182	159	23	142	18	17	5															
TOTAL	5,369	3,398	1,971	1,416	626	1,257	619	99	86	55	32	14	52	295	345	13	1	[3]	[3]	249	210	

[1]For those operations reporting activity in more than one county, employment was evenly split (to the nearest whole employee) between the counties unless a by-county breakdown was provided by the operator.
[2]Employment is not included for mines which were owner operated.
[3]Employment information is not available.
[4]Employment for Lake Erie sand and gravel dredging operations is included in the total employment figure for the county in which the operation is based.
[5]This county reported no production or sales of industrial minerals in 1996.

LIMESTONE AND DOLOMITE

Limestone and dolomite were sold or produced by 79 companies at 120 operations in 53 Ohio counties during 1996. Sales of limestone and dolomite totalled 69,431,223 tons (+2.8 percent from 1995); Ottawa, Franklin, Erie, Delaware, and Wyandot Counties accounted for 38.3 percent of those sales. Reported known production totalled 69,098,412 tons.

Lime produced from Ohio limestone and dolomite totalled 1,288,241 tons in 1996 and came from five operations in Ottawa, Sandusky, and Wyandot Counties. Ohio ranks 2nd nationally in the production of lime out of 33 producing states. The top five states, in descending order of lime production, are Missouri, Ohio, Kentucky, Alabama, and Pennsylvania. Ohio ranks 7th in the production of crushed stone (which includes crushed sandstone) out of 49 producing states. The states leading Ohio in the production of crushed stone, in descending order, are Texas, Pennsylvania, Florida, Missouri, Illinois, and Georgia.[4]

The total value[5] of limestone and dolomite sold in 1996 was $288,640,762. Average price per ton was $4.16.

An annual average of 1,416 employees worked an average of 218 days to produce limestone and dolomite. Total wages of $68,552,761 were paid to a total of 2,042 employees (1,416 production employees and 626 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $33,571. An additional 288 people (135 production employees and 153 nonproduction employees) were employed by operations mining limestone and dolomite along with one or more other mineral commodities.

Primary uses for crushed and broken limestone and dolomite were road construction/resurfacing and commercial building. Other major uses for various forms of limestone and dolomite included stone for asphaltic concrete and portland cement concrete, aglime, and the production of lime.

[4]Information from U.S. Geological Survey.
[5]Includes reported and estimated values. See footnote 1, p. 5.

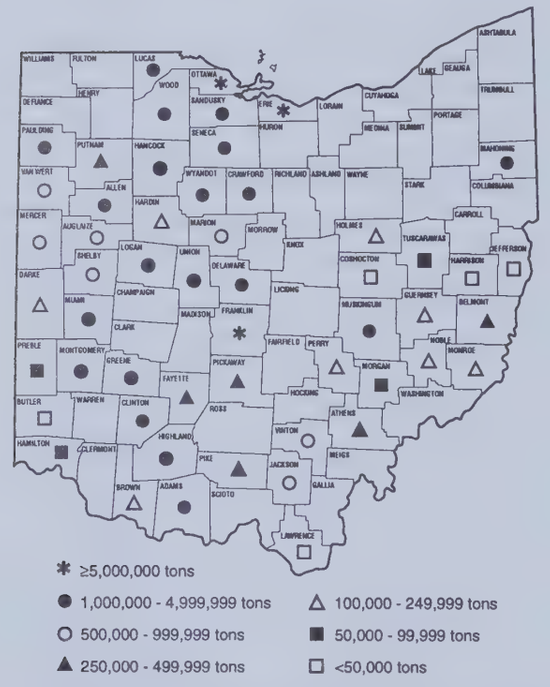


FIGURE 6.—Sales of limestone and dolomite in Ohio in 1996, by county.

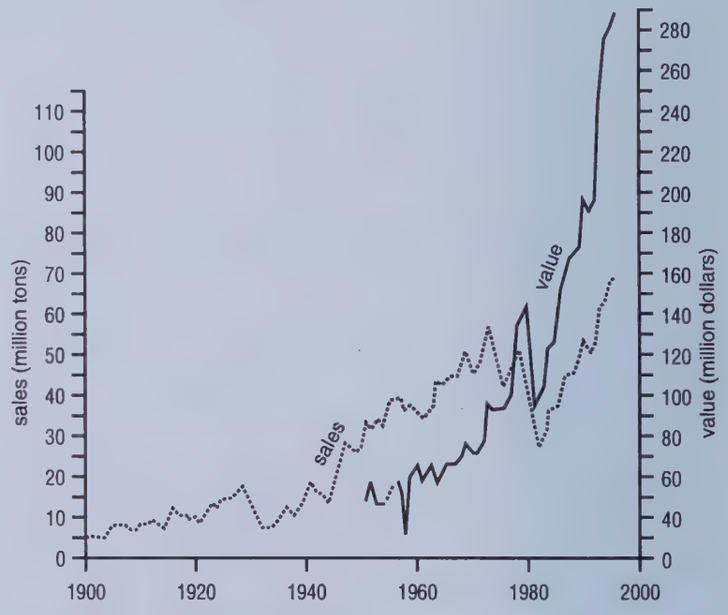


FIGURE 7.—Sales and value of limestone and dolomite in Ohio. Value line dashed where data not available.

TABLE 20.—*1996 Production of lime from Ohio stone, by county and type*

County	Total tons[1]	Building (tons)	Chemical and industrial (tons)	Refractory (tons)	Other (tons)
Ottawa	118,674	68,776	49,898		
Sandusky	1,044,677		1,044,677		
Wyandot	124,890		124,890		
TOTAL	1,288,241	68,776	1,219,465	0	0

[1]Burning produced a 54.1 percent weight loss.

TABLE 21.—*1996 Ohio limestone and dolomite sales, by county and type*

County	Tons sold															
	Total all types	Crushed and broken stone										Dimension stone	Stone for portland cement manufacture	Agricultural stone (aglime)	Raw stone for burning	Unspecified/ other
		Total	Riprap	Flux stone	Stone for portland cement concrete	Stone for asphaltic concrete	Road construction/ resurfacing	Commercial building	Railroad ballast	Extenders/ fillers	Unspecified/ other					
Adams	2,118,089	2,118,089					2,118,089									
Allen	1,666,028	1,658,009	5,578		57,788	178,407	104,641	1,175,776	28,909		106,910	2,623		5,396		
Athens	273,681	273,681					273,681									
Auglaize	728,021	724,265	18,587			19,258	168,998	517,207	215					3,756		
Belmont	499,722	499,722	66,983				126,741	305,998								
Brown	200,800	200,800					200,800									
Butler	29,737	29,737					29,737									
Clinton	1,376,346	1,370,907	60,436		107,463	405,023	567,065	230,920						5,439		
Coshocton	1,860	1,860	1,860													
Crawford	1,866,299	1,799,518	28,161	201,409				1,437,240	1,291	131,417				66,781		
Darke	172,343	172,343					172,343									
Delaware	4,617,208	4,613,812	25,149				1,380,626	3,207,554	483					3,396		
Erie	5,633,441	5,588,935	48,235		836,901	795,389	3,154,492	732,806	21,112					44,506		
Fayette	483,110	461,766	286		43,040	31,949	313,556	72,935						21,344		
Franklin	5,729,781	5,729,781					5,462,781	267,000								
Greene	1,283,825	587,882					587,882						695,943			
Guernsey	146,889	146,889					146,889									
Hamilton	98,318	98,318					47,554				50,764					
Hancock	1,310,287	1,303,951	5,564					960,296	338,091					6,336		
Hardin	235,813	227,033	6,517		22,631		43,093	141,785		13,007				8,780		
Harrison	27,603	27,603					27,603									
Highland	1,951,365	1,939,872	1,994			26,826	1,911,052							11,493		
Holmes	111,646	111,646					111,646									
Jackson	705,872	583,203					583,203							122,669		
Jefferson	27,603	27,603					27,603									
Lawrence	42,955	42,955					42,955									
Logan	1,028,622	1,028,261	30,049		157,966	76,056	632,552	131,638						361		
Lucas	2,953,931	2,946,319	132,294		450,000	150,000	1,898,609	315,416						7,612		
Mahoning	2,335,777	358,695					248,852				109,843		1,977,082			
Marion	974,396	965,382	6,109		48,205	31,504	217,781	655,818	5,113		852			9,014		
Mercer	631,656	627,697	12,000		80,000	100,000	335,697	100,000						3,959		
Miami	1,417,994	1,356,910	6,422	67,763	107,864	74,893	1,023,605				76,363			61,084		
Monroe	103,434	103,434									103,434					
Montgomery	1,132,145	1,089,509					1,089,509						42,636			
Morgan	82,621	82,621					82,621									
Muskingum	1,770,082	1,620,148	74,966		74,966	74,966	1,082,837	74,967	74,967		162,479		74,967	74,967		
Noble	162,614	162,614	10,400				152,214									
Ottawa	6,052,647	5,809,299	35,257	162,383	983,975	890,019	2,641,180	1,074,810			21,675				237,348	6,000
Paulding	1,942,915	1,209,116	16,195	50,000	150,000	110,000	464,857	120,000			298,064		661,496	72,303		
Perry	199,765	199,765					199,765									
Pickaway	333,951	333,951	3,336		78,212	41,570	114,295	96,538								
Pike	373,641	366,961	24,352		5,274	7,467	329,868							6,680		
Preble	87,967	83,299	12,686				70,517				96	4,668				
Putnam	291,163	291,163	3,171		53,820		234,172									
Sandusky	4,046,746	1,516,744		47,523	9,800		1,150,826	60,100			248,495			199,580	2,330,422	
Seneca	1,883,504	1,707,655	17,752		11,884	96,560	1,566,603	14,856				2,769		173,080		
Shelby	906,623	906,623					584,404	322,219								
Tuscarawas	87,877	87,877	6,723				81,071				83					
Union	1,359,834	1,312,424	6,007		770	19,211	1,285,520				916	3,867		43,543		
Van Wert	601,529	601,529	20,085		44,701	128,461	235,491	172,791								
Vinton	678,192	678,192					678,192									
Wood	2,100,286	2,037,573	27,070		288,104	352,832	1,249,567	120,000						62,713		
Wyandot	4,552,669	4,137,978	92,852	519,005	399,658	456,624	481,837	1,763,679	142,892	189,212	92,219			177,852	236,839	
TOTAL	69,431,223	61,961,919	807,076	1,048,083	4,013,022	4,067,015	35,735,472	14,072,349	613,073	333,636	1,272,193	13,927	3,452,124	1,192,644	2,804,609	6,000

SAND AND GRAVEL

Sand and gravel were sold or produced by 230 companies at 292 operations in 64 Ohio counties plus Lake Erie during 1996. Sales[6] of sand and gravel totalled 52,092,243 tons (+2.9 percent from 1995). Sand accounted for 25,880,005 tons of the total sand and gravel sold, and gravel accounted for 26,212,238 tons. Hamilton, Franklin, Butler, Portage, and Stark Counties led in sales, accounting for 41.9 percent of the total. Reported known production[6] of sand and gravel totalled 52,767,008 tons in 1996. Ohio ranks 4th nationally in the production of construction sand and gravel out of 50 producing states and Puerto Rico. The top five states, in descending order of production, are California, Texas, Michigan, Ohio, and Arizona. Ohio ranks 8th nationally in the production of industrial sand and gravel out of 35 states. The states leading Ohio in the production of industrial sand and gravel, in descending order, are Illinois, Michigan, New Jersey, California, Wisconsin, North Carolina, and Texas.[7]

A total of 135,054 tons of sand were dredged from Lake Erie in 1996. The Maumee Bay and Maumee River areas are no longer producing sand or gravel.

The total value[8] of sand and gravel sold in 1996 was $204,846,796. Average price per ton was $3.93.

An annual average of 1,257 employees worked an average of 180 days in 1996 to produce sand and gravel. Total wages of $58,583,210 were paid to a total of 1,876 employees (1,257 production employees and 619 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $31,228. An additional 184 people (129 production employees and 55 nonproduction employees) were employed by operations mining sand and gravel along with one or more other mineral commodities.

Road construction/resurfacing, building, asphaltic concrete, and portland cement concrete were the major uses for Ohio sand and gravel in 1996.

[6]Sales and production figures for sand include material dredged from Lake Erie.

[7]Information from U.S. Geological Survey.

[8]Includes reported and estimated values. See footnote 1, p. 5.

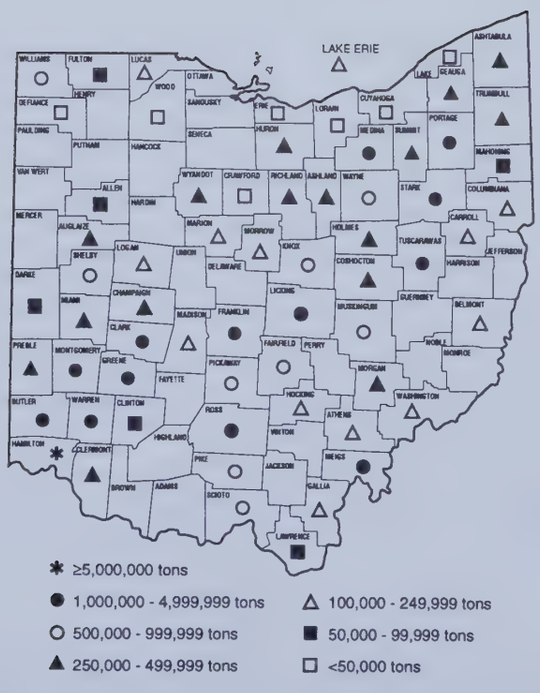


FIGURE 8.—Sales of sand and gravel in Ohio in 1996, by county.

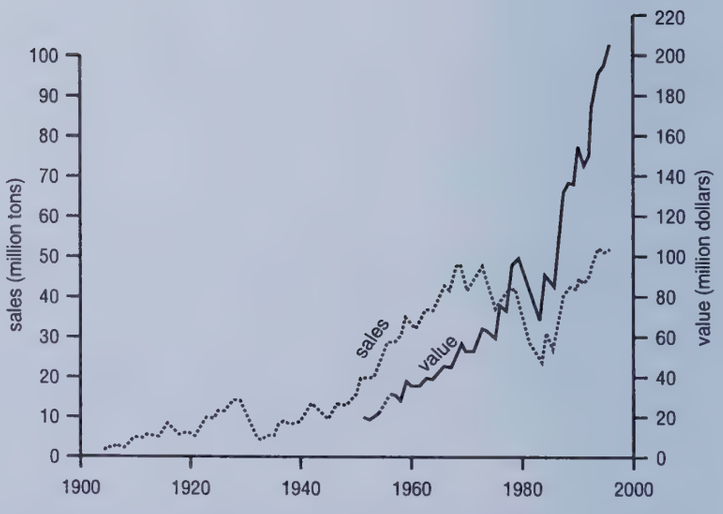


FIGURE 9.—Sales and value of sand and gravel in Ohio. Value line dashed where data not available. Figures from 1984 to 1996 include Lake Erie dredged material.

Close-up view of feed conveyor coming out of the tunnel carrying raw material to the plant to be processed. Olen Corporation, Columbus Plant #3, Franklin County. Photo courtesy of Gregg Webb, plant manager.

Feed conveyor coming out of the tunnel at Olen Corporation's Columbus Plant #3, Franklin County. Photo courtesy of Gregg Webb, plant manager.

TABLE 22.—*1996 Ohio sand and gravel sales, by county and type*

County	Tons sold																
	Total sand and gravel	Total sand	Total gravel	Building		Portland cement concrete		Asphaltic concrete		Road construction/ resurfacing		Filtration		Foundry sand	Industrial sand	Other/unspecified	
				Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel	Sand	Gravel			Sand	Gravel
TOTAL	52,092,243	25,880,005	26,212,238	4,772,369	6,592,076	3,711,734	1,788,514	3,467,835	2,501,728	9,394,925	11,428,974	213,756	344,789	745	46,037	4,272,604	3,556,157
Allen	55,185	27,395	27,790		7,253							27,395	20,537				
Ashland	310,900	134,517	176,383	40,300	50,837					80,720	101,900					13,497	23,646
Ashtabula	299,397	173,971	125,426	35,360	52,025	76,900				5,391	1,517	6,081	1,511			50,239	70,373
Athens	140,953	80,314	60,639		34,600			39,857	12,389							40,457	13,650
Auglaize	255,194	171,642	83,552	134,456		37,186	83,552										
Belmont	198,736	123,808	74,928					123,808	71,262		3,666						
Butler	4,353,434	1,714,478	2,638,956	64,127	150,383	18,000	60,000	18,571	91,000	1,275,726	1,991,551					338,054	346,022
Carroll	108,766	67,522	41,244							67,522	41,244						
Champaign	320,723	45,326	275,397	3,346	65,136											41,980	210,261
Clark	2,488,845	751,525	1,737,320	68,466	198,305	116,376	487,455	282,823	132,238	282,442	700,133					1,418	219,189
Clermont	250,596	155,504	95,092													155,504	95,092
Clinton	58,506	29,253	29,253	1,523	1,523			27,730	27,730								
Columbiana	115,266	42,817	72,449	4,855	10,333			18,885		4,856	42,937		5,166			14,221	14,013
Coshocton	466,697	233,360	233,337	58,882	5,174	10,010	11,261	24,291	26,354	1,421	38,998	884	496			137,872	151,054
Crawford	312	156	156													156	156
Cuyahoga	8,100	4,050	4,050													4,050	4,050
Darke	77,153	37,979	39,174													37,979	39,174
Defiance	4,379	0	4,379								4,379						
Erie	7,075	7,075	0											745		6,330	
Fairfield	918,107	594,145	323,962	47,100	218,181	437,860		106,604	98,100							2,581	7,681
Franklin	4,396,702	1,746,105	2,650,597	206,590	1,275,779	560,400	135,800	352,585	416,633	557,153	803,367				25,000	44,377	19,018
Fulton	75,000	37,500	37,500													37,500	37,500
Gallia	124,010	124,010	0													124,010	
Geauga	455,488	271,333	184,155	210,033	36,425	26,468	2,763					11,373	144,673			23,459	294
Greene	2,641,099	1,143,574	1,497,525	72,508	71,225	29,564	49,822	15,991	25,512	818,421	1,025,014					207,090	325,952
Hamilton	5,362,298	2,337,636	3,024,662	646,412	1,020,858	4,666	3,218			835,673	1,431,934	404	458			850,481	568,194
Hocking	142,400	76,025	66,375	1,000		30,000	20,000			42,500	43,150					2,525	3,225
Holmes	408,451	183,317	225,134	4,823	38,290	75,612	77,278	57,348		23,892	95,487					21,642	14,079
Huron	316,670	158,335	158,335					300	300	158,035	158,035						
Knox	919,967	355,272	564,695	40,651	143,216	163,000	62,000	65,500	105,400		67,812	7,495	10,000			78,626	176,267
Lake	28,743	13,800	14,943			5,900										7,900	14,943
Lawrence	67,000	67,000	0													67,000	
Licking	1,460,066	744,910	715,156	99,292	410,639	138,000	36,224	82,500	107,000	379,387	134,000	23,583	25,527			22,148	1,766
Logan	228,808	167,073	61,735	13,490		45,219						29,416				78,948	61,735
Lorain	5,850	5,850	0	5,850													
Lucas	196,910	196,910	0	182,158												14,752	
Madison	134,968	38,837	96,131		48,691	38,837											47,440
Mahoning	67,434	58,723	8,711	14,381	4,355					28,761	2,178	14,381	2,178			1,200	
Marion	169,644	89,902	79,742	34,603	34,603											55,299	45,139
Medina	1,246,145	729,339	516,806	166,660	260,006			275,137	12,823	262,407	243,977	7,111				18,024	

Meigs	1,417,038	781,419	635,619	198,500	186,500	60,000	40,000	402,500	322,500	93,419	68,619	27,000	18,000				
Miami	466,283	229,386	236,897	48	48	78,000	26,000			135,555	195,067					15,783	15,782
Montgomery	1,529,560	609,581	919,979	39,091	127,468	220,263	203,211	115,417	123,585	83,922	173,872		12,513			150,888	279,330
Morgan	256,831	174,016	82,815	34,760	15,085	35,166	21,699	34,696	14,870	34,697	14,870	34,697	16,291				
Morrow	157,282	49,707	107,575	40,582	73,055						15,767	9,125	12,244				6,509
Muskingum	612,297	415,473	196,824							415,473	196,824						
Pickaway	561,698	216,564	345,134	14,801	156,547	89,016		105,494	176,351		10,519	5,535				1,718	1,717
Pike	727,139	556,172	170,967					15,522	16,280	530,775	144,812					9,875	9,875
Portage	4,148,096	2,927,801	1,220,295	1,166,060	705,967	316,108		131,061	28,801	332,910	160,862		5,320		17,952	963,710	319,345
Preble	307,573	30,235	277,338	4,097	248					26,138	277,090						
Richland	410,007	108,564	301,443	99,944	271,823			6,493	6,493		7,917		3,000			2,127	12,210
Ross	1,243,043	653,957	589,086	98,780	119,968	32,207		84,370	76,832	427,600	348,251		37,710			11,000	6,325
Scioto	753,673	659,503	94,170	119,455	15,838	35,000	5,000	315,181	12,000	184,684	61,332				3,085	2,098	
Shelby	565,784	282,890	282,894			152,270	152,274	75,000	75,000	55,620	55,620						
Stark	3,554,436	1,741,227	1,813,209	46,952	67,648	224,689	11,746	275,318	359,621	1,000,761	1,213,671					193,507	160,523
Summit	364,546	241,551	122,995	5,829	5,676	19,134		10,000	10,000	52,500	53,794		13,432			154,088	40,093
Trumbull	438,196	409,016	29,180	109,936	15,636	206,714		49,940	11,965		1,579					42,426	
Tuscarawas	1,884,742	949,142	935,600	383,810	377,175	10,227	34,758	129,755	97,528	364,005	371,735					61,345	54,404
Warren	1,669,061	703,898	965,163	31,259	65,843					670,639	897,320					2,000	2,000
Washington	147,569	99,196	48,373	28,479				15,690	5,431	6,375	16,263					48,652	26,679
Wayne	754,495	395,616	358,879	29,771	220,009	138,603	31,109	101,136	19,730	117,364	81,905					8,742	6,126
Williams	616,938	379,107	237,831	11,600	20,141	184,000	78,000	40,000	18,000	38,181	16,364					105,326	105,326
Wood	11,121	11,121	0	11,121													
Wyandot	473,804	179,521	294,283	102,377	9,564	73,562	155,344				113,642	3,582	15,733				
Lake Erie	135,054	135,054	0	38,251		22,777		68,332				5,694					
TOTAL	52,092,243	25,880,005	26,212,238	4,772,369	6,592,076	3,711,734	1,788,514	3,467,835	2,501,728	9,394,925	11,428,974	213,756	344,789	745	46,037	4,272,604	3,556,157

TABLE 23.—*1996 Ohio Lake Erie sand and gravel production*

Area	Production[1]	
	Cubic yards	Short tons
Lake Erie		
Fairport	84,360	113,886
Vermilion-Lorain "A"	15,680	21,168
Vermilion-Lorain "B"	0	0
TOTAL	100,040	135,054

[1]Production reported in cubic yards; converted to tons in the ratio of 1 cubic yard equals 1.35 short tons

SANDSTONE AND CONGLOMERATE

Sandstone and conglomerate were sold or produced by 20 companies at 30 operations in 16 Ohio counties during 1996. Sales totalled 1,808,816 tons (+1.4 percent from 1995); Geauga, Perry, Knox, Pike, and Lake Counties accounted for 88.0 percent of that total. Crushed sandstone and conglomerate accounted for 1,768,414 tons of the total sales, and dimension stone accounted for 40,402 tons. Reported known production of sandstone and conglomerate was 2,038,896 tons in 1996. Ohio ranks 18th nationally in production of all dimension stone out of 36 producing states, but ranks first in the production of sandstone dimension stone. The top five states, in descending order of total dimension-stone production, are Indiana, Georgia, Wisconsin, Massachusetts, and Vermont.[9] National standings for crushed stone are included with Limestone and Dolomite.

The total value[10] of sandstone and conglomerate sold in 1996 was $36,268,331. Average price per ton was $19.08 for crushed stone and $62.42 for dimension stone.

An annual average of 99 employees worked an average of 114 days in 1996 to produce sandstone and conglomerate. Total wages of $5,819,340 were paid to a total of 185 employees (99 production employees and 86 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $31,456. An additional 67 people (56 production employees and 11 nonproduction employees) were employed by operations mining sandstone and conglomerate along with one or more other mineral commodities.

Crushed stone was used primarily for glass sand, construction, foundry sand, silica flour, and metallurgical pebble. Dimension stone was used primarily for rough construction purposes.

[9]Information from U.S. Geological Survey.

[10]Includes reported and estimated values. See footnote 1, p. 5.

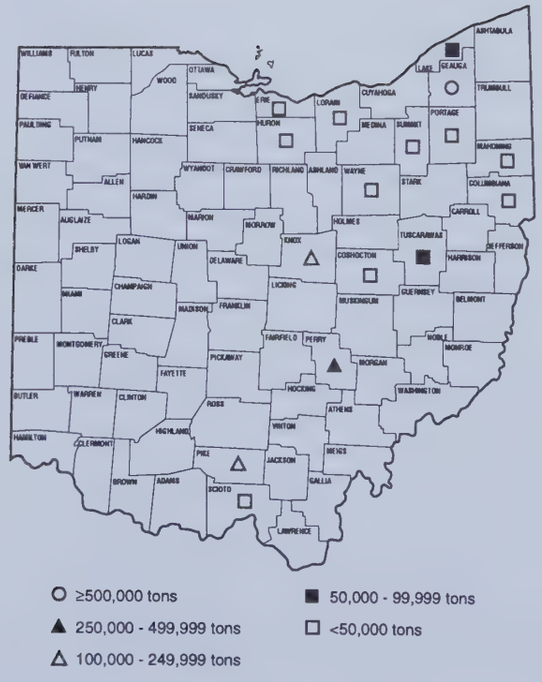


FIGURE 10.—Sales of sandstone and conglomerate in Ohio in 1996, by county.

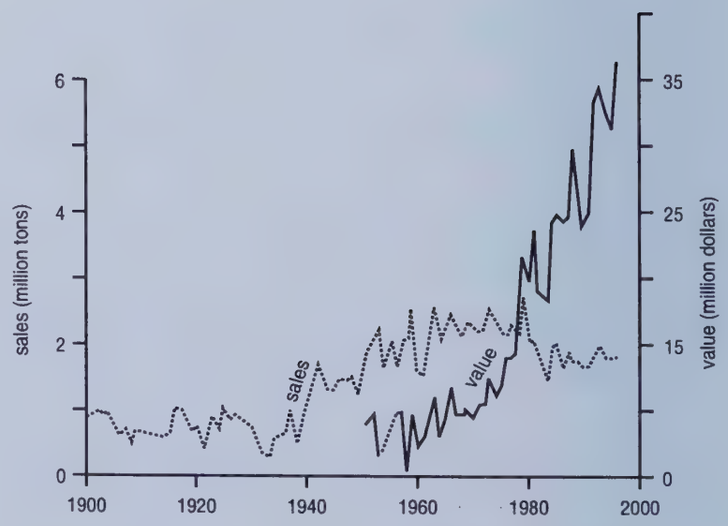


FIGURE 11.—Sales and value of sandstone and conglomerate. Value line dashed where data not available.

TABLE 24.—*1996 Ohio sales of crushed sandstone and conglomerate, by county and type*

County	Tons sold														
	Total	Foundry sand	Glass sand	Metallurgical pebble	Refractory	Riprap	Aggregate	Silica flour	Polishing/ grinding sand	Fire and furnace sand	Engine sand	Frac sand	Construction	Industrial sand	Other/ unspecified
Belmont	7,404					7,404									
Columbiana	31,655					5,351							16,554		9750
Geauga	936,625	135,281	199,699	107,734	5,000		77,700		30,266		9,246	10,831	131,566		229,302
Huron	11,264					11,264									
Knox	179,608		60,904					64,949			5,253	1,374		44,768	2,360
Lake	61,019						61,019								
Lorain	11,500					11,500									
Mahoning	8,840														8,840
Perry	295,079		145,334					86,007				2,149		36,096	25,493
Pike	119,072	50,469	368	22,844					148				4,186		41,057
Portage	37,606														37,606
Summit	884					884									
Tuscarawas	51,729						753						34,252	16,724	
Wayne	23,533												23,533		
TOTAL	1,768,414	185,750	406,305	130,578	5,000	28,999	139,472	150,956	30,414	0	14,499	14,354	210,091	97,588	354,408

TABLE 25.—*1996 Ohio sales of dimension sandstone and conglomerate, by county and type*

County	Tons sold									
	Total	Refractory	Rough construction	Rubble	Grindstones	Rough architectural	Finished	Curbing	Flagging	Other/ unspecified
Coshocton	21,141		21,141							
Erie	2,570		453				2,117			
Lorain	4,196			218	2		3,976			
Scioto	12,495		12,495							
TOTAL	40,402	0	34,089	218	2	0	6,093	0	0	0

CLAY

Clay was sold or produced by 44 companies at 57 operations in 24 Ohio counties during 1996. Clay sales (including material for captive use) totalled 1,983,225 tons (+22.2 percent from 1995); Tuscarawas, Stark, Ottawa, Paulding, and Greene Counties accounted for 69.7 percent of the total sales. Ohio ranks 4th nationally in the production of clay and shale out of 42 producing states. The top five states in descending order of production, are Alabama, Texas, North Carolina, Ohio, and Georgia.[11] Reported known production of clay was 1,980,688 tons. The total value[12] of clay sold (including material for captive use) in 1996 was $12,791,571. Average price per ton was $6.45.

An annual average of 55 employees worked an average of 134 days in 1996 mining clay. Total wages of $1,848,393 were paid to a total of 87 employees (55 production employees and 32 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $21,246. An additional 243 people (106 production employees and 137 nonproduction employees) were employed by operations mining clay along with one or more other mineral commodities.

Clay mined in Ohio was largely for captive use in the landfill industry, the production of common clay products, for cement manufacture, and refractories.

[11]Information from U.S. Geological Survey.
[12]Includes reported and estimated values. See footnote 1, p. 5.

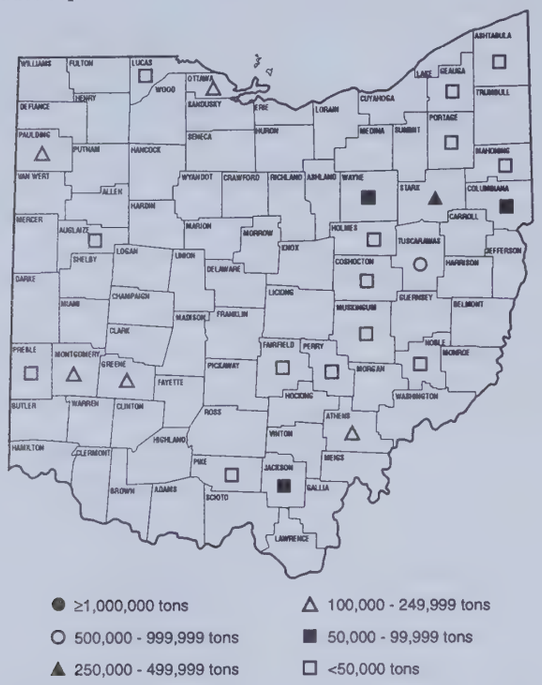


FIGURE 12.—Clay sales in Ohio in 1996, by county.

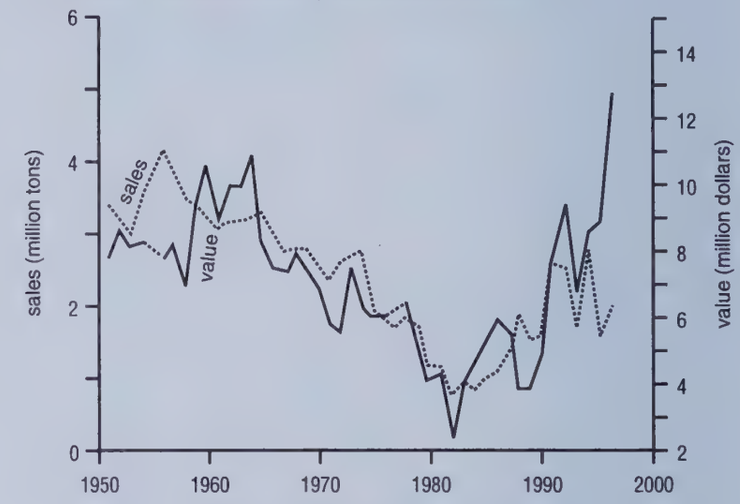


FIGURE 13.—Sales and value of clay in Ohio. Value line dashed where data not available.

TABLE 26.—*1996 Ohio clay sales, by county and type*

County	Tons sold								
	Total	Common clay products	Stoneware	Vitrified products	Cement manufacture	Refractories	Construction	Landfill use	Other/ unspecified
Ashtabula	9,355						9,355		
Athens	140,511						3,539	131,250	5,722
Auglaize	6,699	6,699							
Columbiana	82,222	49,071		394		31,591	1,166		
Coshocton	41,845							41,845	
Fairfield	865								865
Geauga	319								319
Greene	148,076				148,076				
Holmes	10,074	10,074							
Jackson	58,729	57,717							1,012
Lucas	15,848	15,848							-
Mahoning	4,312						4,312		
Montgomery	127,032	127,032							
Muskingum	25,207		15,910	7,759					1,538
Noble	48								48
Ottawa	205,600							175,600	30,000
Paulding	151,295				151,295				
Perry	13,058		1,127						11,931
Pike	6,717								6,717
Portage	246						90		156
Preble	4,716						4,716		
Stark	254,722	58,936		8,898		7,218	70	179,600	
Tuscarawas	622,565	273,683		32,725		18,730		283,666	13,761
Wayne	53,164	48,000					5,164		
TOTAL	1,983,225	647,060	17,037	49,776	299,371	57,539	28,412	811,961	72,069

SHALE

Shale was sold or produced by 25 companies at 35 operations in 20 Ohio counties during 1996. Shale sales (including material for captive use) totalled 1,357,276 tons (-23.3 percent from 1995); Cuyahoga, Hamilton, Tuscarawas, Marion, and Mahoning Counties accounted for 80.1 percent of the total sales. Reported known production of shale was 1,319,105 tons. National standings for shale production are included with Clay. The total value[13] of shale sold (including material for captive use) in 1996 was $4,748,461. Average price per ton was $3.50.

An annual average of 14 employees worked an average of 158 days in 1996 mining shale. Total wages of $1,840,273 were paid to a total of 66 employees (14 production employees and 52 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $27,883. An additional 127 people (103 production employees and 24 nonproduction employees) were employed by operations mining shale along with one or more other mineral commodities.

Shale mined in Ohio was largely for captive use in the production of common clay products, for lightweight aggregate, for the landfill industry, and for cement manufacture.

[13]Includes reported and estimated values. See footnote 1, p. 5.

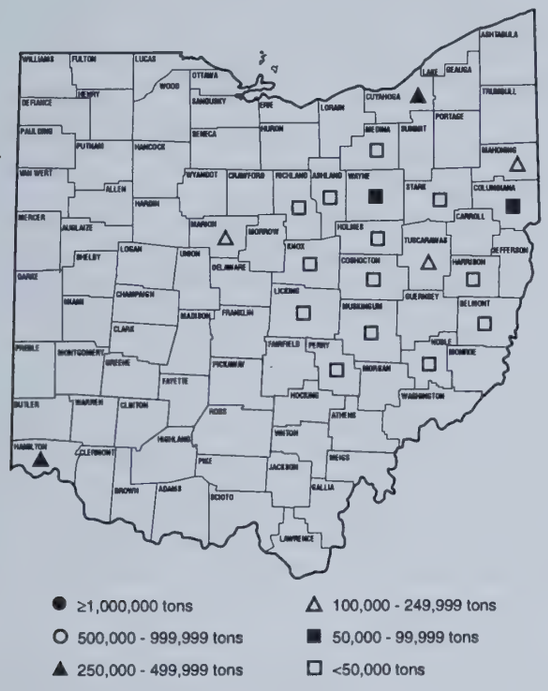


FIGURE 14.—Shale sales in Ohio in 1996, by county.

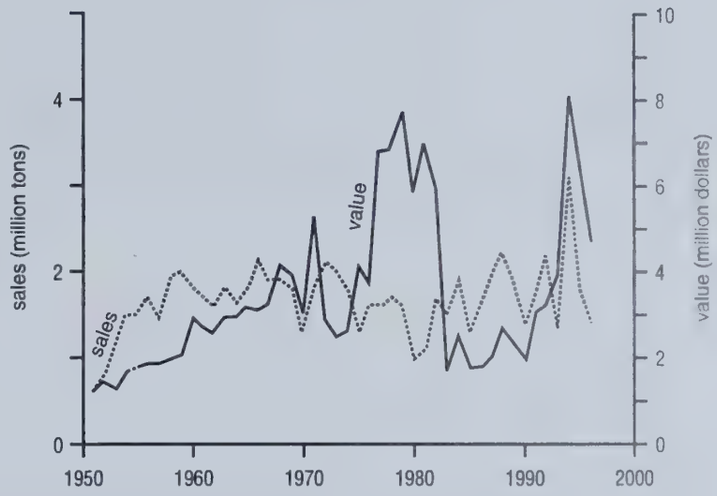


FIGURE 15.—Sales and value of shale in Ohio. Value line dashed where data not available.

TABLE 27.—*1996 Ohio shale sales, by county and type*

County	Tons sold							
	Total	Common clay products	Vitrified products	Cement manufacture	Lightweight aggregate	Construction	Landfill use	Other/ unspecified
Ashland	1,368	1,368						
Ashland	1,224	1,224						
Belmont	2,017					2,017		
Columbiana	62,758	38,171						24,587
Coshocton	2,100	2,100						
Cuyahoga	280,429				280,429			
Hamilton	255,076						255,076	
Harrison	31,061		31,061					
Holmes	3,198	3,198						
Knox	2,976					2,976		
Licking	20,267		20,267					
Mahoning	117,107			117,107				
Marion	190,287	190,287						
Medina	4,665	4,665						
Muskingum	10,938							10,938
Noble	1,100	1,100						
Perry	15,582							15,582
Richland	25,000		25,000					
Stark	12,080		4,013			80	7,987	
Tuscarawas	244,792	224,962	6,280				13,550	
Wayne	74,619	27,000				47,619		
TOTAL	1,357,276	492,707	86,621	117,107	280,429	52,692	276,613	51,107

SALT

Salt was produced by 3 companies at 5 operations in 5 Ohio counties during 1996. Total tons of salt sold in 1996 amounted to 5,169,757 tons (+28.2 percent from 1995). Rock salt sales totalled 4,376,194 tons from 2 underground mines, one each in Cuyahoga and Lake Counties. Three brining operations, one each in Licking, Summit, and Wayne Counties, sold a total of 19,197 tons of salt in brine and 774,657 tons of evaporated salt. Reported known production of salt was 4,885,957 tons in 1996. Ohio ranks 3rd nationally in the production of salt out of 14 producing states. The top five states, in descending order of production, are Louisiana, Texas, Ohio, New York, and Kansas.[14]

The total value[15] of the salt sold in 1996 was $56,928,065. Average price per ton of rock salt was $10.34 and of salt in brine and evaporated salt was $14.70. The average price per ton of all salt sold was $11.01.

An annual average of 295 employees worked an average of 320 days in 1996 to produce salt. Total wages of $25,568,659 were paid to a total of 640 employees (295 production employees and 345 nonproduction employees). The average annual wage, based on those employees for whom wages were reported, was $39,951. The primary use for Ohio salt was ice control. Salt was also used as an additive in animal feed, for cattle blocks, and as a commercial and residential water-softening agent.

[14]Information from U.S. Geological Survey.
[15]Includes reported and estimated values. See footnote 1, p. 5.
[16]Includes estimated values only. See footnote 1, p. 5.

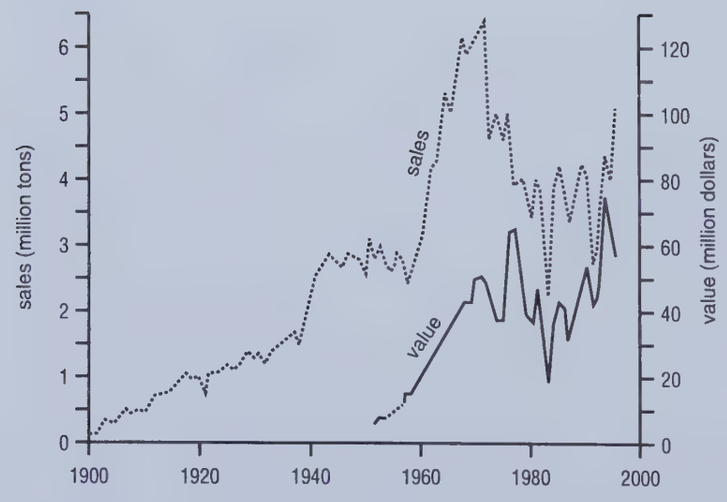


FIGURE 16.—Sales and value of salt in Ohio. Value line dashed where data not available.

GYPSUM

Gypsum was produced by 1 company at 1 operation in Ottawa County during 1996. Gypsum production and sales (all material was for captive use) totalled 267,692 tons (+7.6 percent from 1995). The reported value[16] of the gypsum sold was $2,543,074. Average price per ton was $9.50. Ohio ranks 14th nationally in the production of gypsum out of 18 producing states. The top five states, in descending order of production, are Oklahoma, Iowa, Texas, Nevada, and California.[14]

An annual average of 13 employees worked 297 days in 1996 producing gypsum. Total wages of $550,081 were paid to a total of 14 employees (13 production employees and 1 nonproduction employee). The average annual wage in 1996 was $39,292. The sole use of gypsum from this operation is for the manufacture of wallboard.

PEAT

Peat was produced by 4 companies at 4 operations in 3 Ohio counties during 1996. Peat sales (including material for captive use) totalled 7,923 tons (-57.3 percent from 1995). Champaign, Portage, and Williams Counties accounted for 100 percent of the total sales. The total value of the peat sold in 1996 was $91,440. Average price per ton was $11.54. Reported known production was 9,327 tons. Ohio ranks 12th nationally in the production of peat out of 20 producing states. The top five states, in descending order of production, are Florida, Michigan, Illinois, North Carolina, and Minnesota.[14]

Most peat operations in Ohio are owner operated. Therefore, employment information is not available.

Peat produced in Ohio was used primarily for mulch and soil mix.

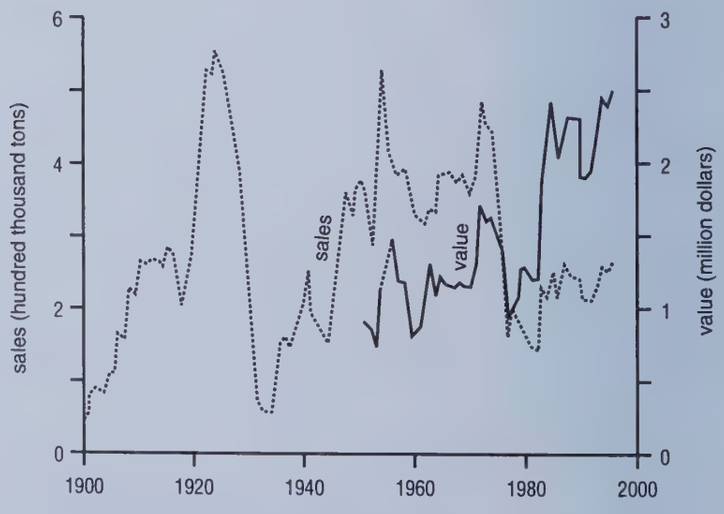


FIGURE 17.—Sales and value of gypsum in Ohio. Value line dashed where data not available. Some figures were calculated because actual figures were not reported in order to maintain confidentiality.

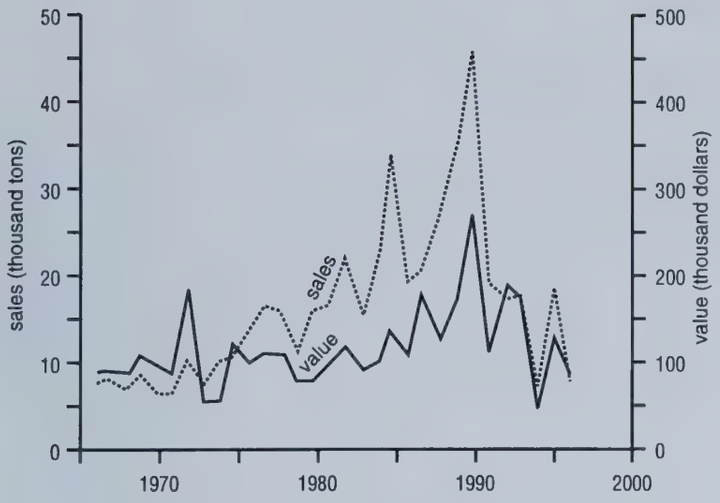


FIGURE 18.—Sales and value of peat in Ohio.

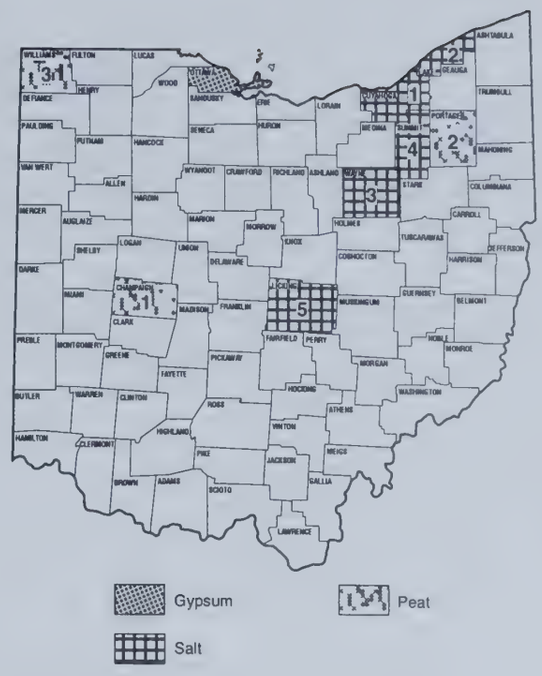


FIGURE 19.—Counties producing salt, gypsum, and peat in Ohio in 1996, and their ranking in sales.

Raw-feed processing section of Olen Corporation's Columbus Plant #3, Franklin County. Initial separation of sand and gravel occurs here. Sand-size material then goes to the sand-classification system, and the gravel goes onto a second screen, where it is sorted by size. Material less than 1 inch in diameter is placed into the natural and benefited section of the plant. Material between 1 and 4 inches in diameter is placed into the 100% crushed section of the plant. Photo courtesy of Gregg Webb, plant manager.

OIL AND GAS

This information is summarized from the 1996 Ohio Department of Natural Resources, Division of Oil and Gas Annual Report.

The Division of Oil and Gas issued 920 drilling permits for oil and gas in 1996 (a 7.1 percent increase from 1995); the Division estimates that 712 wells were actually drilled in 1996. This is the fifth year in a row and the 10th time since 1888 that fewer than 1,000 wells were drilled annually in Ohio. Wells were drilled in 46 of Ohio's 88 counties. Ohio ranks 7th nationally in the number of wells drilled.[17] The top 10 counties in number of new wells drilled in 1996 were Wayne, Stark, Muskingum, Washington, Coshocton, Portage, Mahoning, Trumbull, Licking, and Pickaway. The Division of Oil and Gas received 630 well completion reports; 482 wells were productive and 148 were dry holes for a completion rate of 76.5 percent.

The total reported crude oil production in Ohio in 1996 was 8,305,366 barrels, a 0.6 percent increase from 1995. Through 1996, Ohio wells have produced 1,053,488,309 barrels of crude oil. Ohio ranks 19th nationally in the volume of crude oil produced.[17] The dollar value of crude oil produced in Ohio in 1996 was $162,403,129, an increase of 18.2 percent. Average price per barrel in 1996 was $19.55, a 17.7 percent increase from the 1995 price.

Natural gas production in Ohio in 1996 was 120,443,871 MCF, a 4.7 percent decrease from 1995. This production figure includes an estimated 1,192,514 MCF of gas used on the lease. Through 1996, Ohio wells have produced 7,202,357,241 MCF of natural gas. Ohio ranks17th nationally in the volume of natural gas produced.[17] The dollar value of natural gas produced in Ohio in 1996 was $313,631,070, an increase of 7.7 percent from 1995. The value of the estimated volume of gas used on the lease was not used in computing this value. The average price per MCF in 1996 was $2.63, an increase of 30 cents from 1995.

The combined total value of Ohio oil and gas production in 1996 was $476,034,199, an increase of 11.1 percent from 1995, and the highest market value since 1993.

[17]Information from the Independent Petroleum Association.

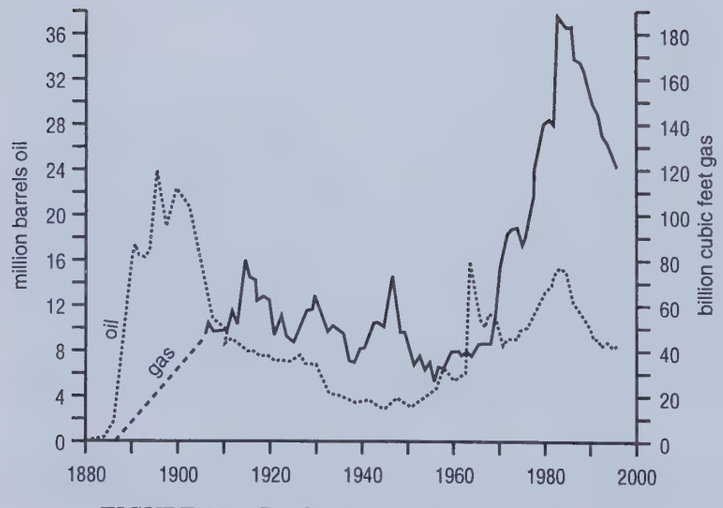


FIGURE 20.—Production of oil and gas in Ohio.

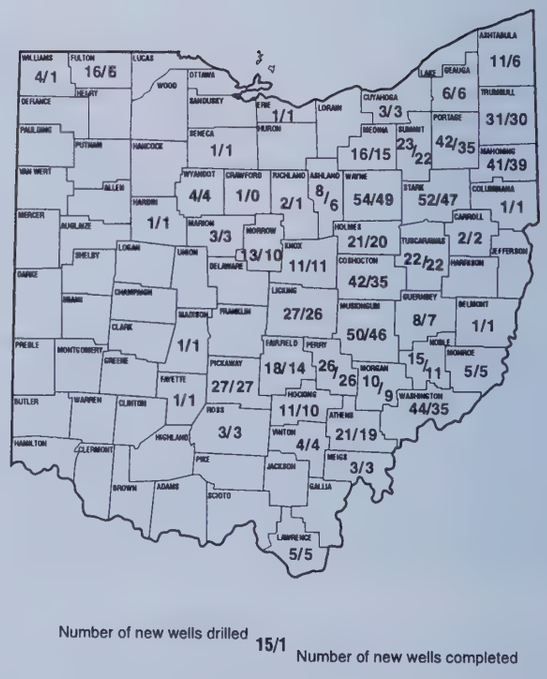


FIGURE 21.—New wells drilled for oil and gas in 1996, by county.

TABLE 28.—*1996 Ohio summary of new oil and gas well completions by county*

County[1]	Development wells		Exploratory wells		Total wells	Percent productive	Drilled footage		
	Productive	Dry	Productive	Dry			Productive	Dry	Total
Ashland	4	1	1	0	6	83.33	7,539	615	8,154
Ashtabula	4	0	0	2	6	66.67	14,393	13,086	27,479
Athens	14	3	2	0	19	84.21	25,758	11,538	37,296
Belmont	0	1	0	0	1	0.00	0	1,700	1,700
Carroll	2	0	0	0	2	100.00	11,585	0	11,585
Columbiana	1	0	0	0	1	100.00	875	0	875
Coshocton	14	10	6	5	35	57.14	96,453	91,335	187,788
Cuyahoga	0	0	1	2	3	33.33	3,615	8,661	12,276
Erie	0	0	0	1	1	0.00	0	3,884	3,884
Fairfield	2	0	7	5	14	64.29	37,449	20,997	58,446
Fayette	0	0	0	1	1	0.00	0	2,196	2,196
Fulton	1	0	5	0	6	100.00	3,092	0	3,092
Geauga	6	0	0	0	6	100.00	24,458	0	24,458
Guernsey	7	0	0	0	7	100.00	36,762	0	36,762
Hardin	0	0	0	1	1	0.00	0	1,560	1,560
Hocking	4	2	1	3	10	50.00	19,688	21,062	40,750
Holmes	11	4	1	4	20	60.00	69,867	48,573	118,440
Knox	9	1	1	0	11	90.91	30,087	4,634	34,721
Lawrence	4	0	1	0	5	100.00	9,373	0	9,373
Licking	16	3	5	2	26	80.77	59,612	19,927	79,539
Madison	0	0	0	1	1	0.00	0	3,476	3,476
Mahoning	39	0	0	0	39	100.00	213,175	0	213,175
Marion	0	0	1	2	3	33.33	2,725	4,531	7,256
Medina	7	4	1	3	15	53.33	34,600	33,161	67,761
Meigs	3	0	0	0	3	100.00	13,045	0	13,045
Monroe	4	0	1	0	5	100.00	11,500	0	11,500
Morgan	5	1	1	2	9	66.67	30,169	7,899	38,068
Morrow	5	3	1	1	10	60.00	15,600	10,231	25,831
Muskingum	30	5	5	6	46	76.09	179,671	67,971	247,642
Noble	11	0	0	0	11	100.00	57,052	0	57,052
Perry	13	6	6	1	26	73.08	91,350	28,202	119,552
Pickaway	4	7	6	10	27	37.04	27,791	45,668	73,459
Portage	29	1	3	2	35	91.43	201,506	21,491	222,997
Richland	0	0	0	1	1	0.00	0	290	290
Ross	0	0	1	2	3	33.33	3,555	4,883	8,438
Seneca	0	0	0	1	1	0.00	0	2,588	2,588
Stark	38	0	8	1	47	97.87	250,021	7,792	257,813
Summit	21	0	1	0	22	100.00	93,437	0	93,437
Trumbull	29	0	1	0	30	100.00	147,708	0	147,708
Tuscarawas	12	1	3	6	22	68.18	88,641	53,159	141,800
Vinton	2	0	2	0	4	100.00	9,784	0	9,784
Washington	29	4	1	1	35	85.71	82,976	14,520	97,496
Wayne	23	15	5	6	49	57.14	156,156	118,993	275,149
Williams	0	0	1	0	1	100.00	590	0	590
Wyandot	0	0	0	4	4	0.00	0	8,403	8,403
TOTAL	403	72	79	76	630	76.51	2,161,658	683,026	2,844,684

[1]No wells were drilled in the following counties in 1996: Adams, Allen, Auglaize, Brown, Butler, Champaign, Clark, Clermont, Clinton, Darke, Defiance, Delaware, Franklin, Gallia, Greene, Hamilton, Hancock, Harrison, Henry, Highland, Huron, Jackson, Jefferson, Lake, Logan, Lorain, Lucas, Mercer, Miami, Montgomery, Ottawa, Paulding, Pike, Preble, Putnam, Sandusky, Scioto, Shelby, Union, Van Wert, Warren, and Wood. No well completion information was reported for Crawford County in 1996.

TABLE 29.—*1996 Ohio summary of new oil and gas well completions by producing zone*

Producing zone	No. of producing wells	No. of dry holes	Total no. of wells	Percent productive	Total footage
Pennsylvanian undifferentiated	16	4	20	80.00	18,727
Upper Mississippian undifferentiated	13	1	14	92.86	16,104
Lower Mississippian "1st & 2nd Berea"	19	8	27	70.37	31,108
Devonian					
Ohio Shale	24	0	24	100.00	35,627
Oriskany	4	0	4	100.00	16,647
Silurian "Clinton-Medina"	238	7	245	97.14	1,147,893
Lower Ordovician					
Trenton-Black River	0	1	1	0.00	3,160
Beekmantown	19	3	22	86.36	137,777
Cambrian-Ordovician Rose Run	110	78	188	58.51	1,034,191
Cambrian					
Trempealeau	39	41	80	48.75	384,563
Krysik-Mt. Simon	0	4	4	0.00	15,411
Precambrian	0	1	1	0.00	3,476
TOTAL	482	148	630	76.51	2,844,684

TABLE 30.—*Ohio counties[1] and their state mine number abbreviations[2]*

County	*Abbreviation*	*County*	*Abbreviation*	*County*	*Abbreviation*
Adams	Ads	Hamilton	Hmn	Noble	Ne
Allen	An	Hancock	Hk	Ottawa	Oa
Ashland	Ald	Hardin	Hdn	Paulding	Pg
Ashtabula	Asa	Harrison	Hn	Perry	Py
Athens	As	Henry	Hy	Pickaway	Pky
Auglaize	Ae	Highland	Hd	Pike	Pke
Belmont	Bt	Hocking	Hg	Portage	Pe
Brown	Bn	Holmes	Hs	Preble	Pre
Butler	Br	Huron	Hrn	Putnam	Pm
Carroll	Cl	Jackson	Jkn	Richland	Rd
Champaign	Cpn	Jefferson	Jfn	Ross	Rs
Clark	Ck	Knox	Kx	Sandusky	Sy
Clermont	Ct	Lake	Lke	Scioto	So
Clinton	Cln	Lawrence	Le	Seneca	Sa
Columbiana	Ca	Licking	Lg	Shelby	Shy
Coshocton	Cn	Logan	Lgn	Stark	Sk
Crawford	Cd	Lorain	Ln	Summit	St
Cuyahoga	Cya	Lucas	Ls	Trumbull	Tl
Darke	Dke	Madison	Mdn	Tuscarawas	Ts
Defiance	De	Mahoning	Mg	Union	Un
Delaware	Del	Marion	Mn	Van Wert	Vt
Erie	Ee	Medina	Ma	Vinton	Vn
Fairfield	Fd	Meigs	Ms	Warren	Wan
Fayette	Fe	Mercer	Mr	Washington	Wn
Franklin	Fn	Miami	Mi	Wayne	We
Fulton	Ftn	Monroe	Me	Williams	Ws
Gallia	Ga	Montgomery	My	Wood	Wd
Geauga	Gea	Morgan	Mon	Wyandot	Wt
Greene	Ge	Morrow	Mw		
Guernsey	Gy	Muskingum	Mum		

[1]Henry County reported no production or sales of mineral commodities in 1996.
[2]As used for State mine numbers.

1996 COAL COMPANIES WITH SALES OR PRODUCTION

Company	Number of mines	Production (tons)	Sales (tons)
American Landfill, Inc.	1	18,444	18,444
Anthony Mining Co., Inc.	2	179,253	179,253
Avis Coal Co.	1	248,989	248,989
B & N Coal, Inc.	7	869,711	869,711
Belden Brick Co.	3	9,341	9,341
Belville Mining Co., Inc.	1	3,917	3,917
Benedict, Inc.	3[1]	140,309	140,309
Blue Jay Enterprises of Ts. Co., Inc.	1	1,378	1,378
Buckeye Industrial Mining Co.	7	993,472	920,346
Buckingham Coal Co., Inc.	5	207,745	205,937
C & E Coal, Inc.	3	87,211	86,212
Cedar Heights Clay Co.	1	3,616	3,616
Central Ohio Coal Co.	1	1,542,123	1,543,498
Commercial Minerals, Inc.	3	70,694	70,694
Cravat Coal Co.	3	68,349	86,192
D. & D. Mining Co.	1	40,418	40,418
Daron Coal Co., Inc.	3	171,130	171,130
ENZ, Inc.	1	141,432	141,432
R.A. Eberts Co., Inc.	2	332,243	332,243
F. & M. Coal Co.	1	13,410	13,410
Fairpoint Coal Co.	1	1,098	1,098
Harrison Mining Corp.	1	1,112,567	1,129,917
Holmes Limestone Co.	9	616,869	616,869
Joyce Coal Co., Inc.	1[2]	37,680	37,680
K.C.C.I.	2	15,497	15,497
Kimble Clay & Limestone Co.	4	247,263	247,263
L & M Mineral Co.	2	33,057	33,057
Red Malcuit, Inc.	1	24,667	24,667
Mardis Coal Co.	1	750	750
Marietta Coal Co.	6	488,904	488,904
Miller Mining, Inc.	10	501,489	489,514
Myers Mining	2	31,105	31,105
Northshore Coal, Inc.	3	60,649	61,055
Ohio Valley Coal Co.	1	4,741,214	4,744,134
Oxford Mining Co.	3	498,093	498,093
Quarto Mining Co.	1	3,382,895	3,686,906
R & F Coal Co.	10	1,412,702	1,406,615
R & R Minerals, Inc.	1	24,533	24,533
Rash Energy, Inc.	1	4,028	4,028
Sands Hill Coal Co., Inc.	5	1,274,216	1,274,216
Melvin Schaney	1	6,414	6,414
Schiappa Coal Co., Inc.	2	101,551	101,551
Southern Ohio Coal Co.	2	5,950,612	5,996,508
Sterling Mining Co.	2	408,278	408,278
Robert Stewart Mining	1	3,805	3,805
Sunnydale Mining	1	97	97
Thompson Bros. Mining Co.	1	3,595	3,595
Valley Mining, Inc.	5	333,917	333,917
Varkony Mining Co.	1	69,838	69,838
Waterloo Coal Co., Inc.	3	1,732,544	1,732,544
Weirton Construction Co.	1	53,573	53,573
Frank Widmor Coal Co.	1	7,088	7,088
TOTAL: 52 companies	134	28,323,773	28,619,579

[1]One of these mines was operated by Waterloo Coal Co., Inc., in the last half of 1996 and is not included in the total number of mines.

[2]This mine was operated by Cravat Coal Co. in the last half of 1996 and is not included in the total number of mines.

1996 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS

For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C).
The designation (u) following the map-location number indicates an underground mine.
To convert short tons to metric tons, multiply the given tonnage by 0.907185.

Name, address, telephone number, and president/ owner/manager of company	Name of mine (and map location number)	County	1996 production (tons)	State mine number	Mining and reclamation permit number
American Landfill, Inc. 7916 Chapel St. SE Waynesburg, OH 44688 330-856-8800 Stephen Kilper, pres.	American Landfill, Inc. (631)	Stark	18,444	Sk-246	D-1090
Anthony Mining Co., Inc. P.O. Box 1298 Steubenville, OH 43952 614-765-4185 Albert Carapellotti, pres.	Sapp (189) Omaits (756)	Jefferson Jefferson	30,237 149,016	Jfn-830 Jfn-835	D-0983 D-1063
Avis Coal Co. P.O. Box 3373 Zanesville, OH 43702-3373 614-453-0721 Richard H. McClelland, pres.	Congo (663)	Perry	248,989	Py-A	D-0931
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 614-783-3575 Carl Baker Jr., pres.	Ullman (514) Pourhouse (626) Lee (627) Barnes Ridge (799) Estadt (760) Flint (761) Shilling (493)	Noble Noble Noble Noble Noble Noble Washington	109,410 298,768 108,845 127,241 147,412 23,118 54,917	Ne-151 Ne-154 Ne-155 Ne-BN2 Ne-BN Ne-BN1 Ne-1008	D-0807 D-0900 D-0958 D-1122 D-1038 D-1032 D-0706
Belden Brick Co. P.O. Box 20910 Canton, OH 44701 330-852-2424 William H. Belden, Jr., pres.	Moomaw Pit (667) Belden Pit (261) Wallick Pit (720)	Tuscarawas Tuscarawas Tuscarawas	2,137 2,248 4,956	Ts-1517 Ts-1646 Ts-1841	IM-46 IM-44 IM-45
Belville Mining Co., Inc. P.O. Box 834 Ironton, OH 45638 614-643-2331 Thomas J. Belville, pres.	Brady Creek (491)	Lawrence	3,917	Le-B	IM-1188, D-0746,
Benedict, Inc. P.O. Box 315 McArthur, OH 45651 614-596-5226 W. E. Engle, pres.	Mitchell Hollow (357) Daft Pit (786) Allied (420)	Vinton Vinton Vinton	46,626 15,694 77,989	Vn-172 Vn-177 Vn-184[1]	D-0445 D-0971 D-0609
Blue Jay Enterprises of Ts. Co., Inc. P.O. Box 641 Zoar, OH 44697 330-874-2048 Leland Ervin, pres.	Swonger-Waltz Mine (783)	Tuscarawas	1,378	Ts-520	IM-214
Buckeye Industrial Mining Co. P.O. Box 389 Lisbon, OH 44432 330-337-9511 John C. Grisham, pres.	R&T (769) Mountain Spring #15 (529) (u) West Point (647) (u) Mountain Spring #11 (790) (u) McPherson (770) Close (802) Robertsville (718)	Carroll Columbiana Columbiana Columbiana Columbiana Stark Stark	164,757 161,962 293,444 136,652 13,422 8,912 214,323	Cl-BIM Ca-349 Ca-987 Ca-1003 Ca-BIM Sk-B Sk-BI	D-1107 D-0928 D-0928 D-0928 D-1112 D-1123 D-1043
Buckingham Coal Co., Inc. P.O. Box 31 Shawnee, OH 43782-0031 800-336-9163 Richard McClelland, pres.	Thompson (497) Walton (800) Brown-Wilson (801) Pine Run (762) Imler (763)	Perry Perry Perry Perry Perry	1,158 58,313 2,677 113,212 32,385	Py-340 Py-BC Py-BC1 Py-BM1 Py-BM2	D-0916 D-1120 D-1126 D-1089 D-1093
C & E Coal, Inc. P.O. Box 333 Lisbon, OH 44432 614-537-1498 Amos L. Rawson, pres.	Miller (609) Amato (646) Ferris (789)	Columbiana Columbiana Columbiana	6,571 78,285 2,355	Ca-892 Ca-986 Ca-CE	D-0896 D-1111 D-1127
Cedar Heights Clay Co. Div. of Resco Products, Inc. P.O. Box 295 Oak Hill, OH 45656-0295 614-682-7794 W. T. Tredennick, pres.	Harrison (797)	Jackson	3,616	Jkn-CH2	IM-1302

[1]This mine was operated January through May 1996 by Benedict, Inc. and June through December 1996 by Waterloo Coal Co,. Inc.

1996 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS—Continued

Name, address, telephone number, and president/ owner/manager of company	Name of mine (and map location number)	County	1996 production (tons)	State mine number	Mining and reclamation permit number
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013 Gary Dimmerling, gen. mgr.	Muskingum Mine (228)	Morgan	1,542,123	Ne-41	D-1034, D-1084
Commercial Minerals, Inc. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 330-549-2165 W. T. Mackall, pres.	Buckeye Rd. (736) Ketchum North (737) Ketchum East (771)	Columbiana Columbiana Columbiana	42,177 19,831 8,686	Ca-997 Ca-998 Ca-CM	D-1051 D-1068 D-0999
Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Michael Puskarich, pres.	Rock Hill Pit (727) Oak Park Pit (776) Salt Run (757)	Belmont Harrison Jefferson	12,264 5,470 50,615	Bt-CCC Hn-C Jfn-JC[2]	D-1080 D-1098 D-1067
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 330-549-3127 Donald Thompson, pres.	Saviers Mine (441)	Columbiana	40,418	Ca-348	D-1002
Daron Coal Co., Inc. 3296 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-6829 Ronald Selway, pres.	Pleasant Valley Mine (433) Reed Mine (671) Peach Pit (766)	Tuscarawas Tuscarawas Tuscarawas	46,747 92,715 31,668	Ts-1991 Ts-DC Ts-DCC	D-0702 D-0954 D-1075
ENZ, Inc. 3497 University Dr. NE New Philadelphia, OH 44663 330-339-5313 James R. Demuth, pres.	Sickafoose Pit (246)	Stark	141,432	Sk-208	D-1015
R. A. Eberts Co., Inc. P.O. Box 109 Jackson, OH 45640 614-286-2975 Phil A. Bowman, pres.	Dark Hollow (652) Carr Ridge-Rittenour (564)	Jackson Jackson, Vinton	183,772 148,471	Jkn-1070 Vn-192	D-0997, D-1115 D-0207, D-1016
F. & M. Coal Co. Costonia Rd. Box 171 Toronto, OH 43964 614-544-5203 Edward Fiala, owner	F. & M. Strip (186)	Jefferson	13,410	Jfn-784	D-0728
Fairpoint Coal Co. P.O. Box 158 Fairpoint, OH 43927 614-695-3174 Dennis Zaccagnini, pres.	Pogue Run (19)	Belmont	1,098	Bt-927	D-0483
Harrison Mining Corp. P.O. Box 176 Cadiz, OH 43907 614-942-8220 John A. McNab, pres.	Nelms Mine-Cadiz Portal (580) (u)	Harrison	1,112,567	Hn-710	D-0426
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 330-893-2721 Merle Mullet, pres.	Byesville (745) 241 Plant (161) 557 (777) Charm-Berlin (753) Bolivar Mine (363) East Canton (779) Stone Creek (601) Rainsberg Farm (724) Dennison (674)	Guernsey Holmes Holmes Holmes Stark Stark Tuscarawas Tuscarawas Tuscarawas	43,814 13,344 46,460 121,586 35,006 129,514 155,177 2,579 69,389	Gy-327 Hs-67 Hs-HL Hs-HLC1 Sk-235 Sk-HCC Ts-2023 Ts-H1 Ts-HLC	D-1088 IM-3, IM-768 D-1109 D-1092 IM-945, D-0865 D-1106 D-0796 IM-927 D-0969
Joyce Coal Co., Inc. P.O. Box 264 St. Clairsville, OH 43950 614-782-1330 Andy Massimino, pres.	Salt Run (757)	Jefferson	37,680	Jfn-JC[2]	D-1067

[2]This mine was operated January through June 1996 by Joyce Coal Co., Inc. and July through December 1996 by Cravat Coal Co.

1996 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS—Continued

Name, address, telephone number, and president/ owner/manager of company	Name of mine (and map location number)	County	1996 production (tons)	State mine number	Mining and reclamation permit number
K.C.C.I. P.O. Box 24 Morristown, OH 43759 614-782-1087 George Krulock, pres.	Susie Mine (519) Apex (796)	Belmont Harrison, Jefferson	14,146 1,351	Bt-1179 Jfn-K	D-0840 IM-1164
Kimble Clay & Limestone Co. 3596 State Route 39W Dover, OH 44622-9801 330-343-1226 Floyd E. Kimble, owner	Kimble Clay & Limestone Co. (262) Kimble Clay & Limestone Co. (598) Kimble Clay & Limestone Co. (781) Casebeer (784)	Tuscarawas Tuscarawas Tuscarawas Tuscarawas	50,925 130,114 19,284 46,940	Ts-1727 Ts-2019 Ts-2031 Ts-K4	IM-9 D-0852 D-0963 D-1079
L & M Mineral Co. 5205 State Rte. 39 Millersburg, OH 44654 330-893-2227 John E. Ling, Jr., pres.	Ridgeway et al. (807) Luikert (267)	Tuscarawas Tuscarawas	29,195 3,862	Ts-2041 Ts-1914	D-1116 D-0701
Red Malcuit, Inc. 707 S. Wooster Ave. P.O. Box 166 Strasburg, OH 44680-0166 330-878-7114 Mark A. Malcuit, pres.	RMI #2 (510)	Tuscarawas	24,667	Ts-2007	D-0737
Mardis Coal Co. 31352 Haessly Rd. Hanoverton, OH 44423 216-853-7857 Rick S. Wheatley, Jr., owner	Jarvis (739)	Columbiana	750	Ca-MC	D-1069
Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Ohio Fireworks (424) North American-Thornton (450) Denham-Albaugh et al. (452) Spragg (788) AT&T (604) Dyrdek-Poe et al. (730)	Belmont Belmont Belmont Belmont Belmont Belmont	20,679 25,777 40,562 38,341 234,266 129,279	Bt-1150 Bt-1162 Bt-1164 Bt-1172 Bt-AT Bt-M2	D-0478, D-0597 D-0720 D-0742 D-0753 D-0922 D-1029
Miller Mining, Inc. P.O. Box 525 Sugarcreek, OH 44681 330-852-4511 Olen Miller, pres.	Geiger-Carroll Mine (734) Snyder (780) Harrison Mine (774) Wilmar Farms-Marino (725) Tunnel Hill (636) Mushrush (803) General Clay-Scarr et al. (637) Ragersville-Putt (768) Coblentz (804) Alpine Hills (805)	Carroll Coshocton, Tuscarawas Harrison Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas	58,924 93,600 582 24,303 76,545 87,388 1,444 139,307 7,751 11,645	Cl-514 Cn-TS Hn-762 Ts-2039 Ts-2040 Ts-AL Ts-GC Ts-MM3 Ts-MM4 Ts-MM5	D-1081 D-1110 D-1100 D-1023 D-0935 D-1121 D-0962, D-0967 D-1085 D-1117 D-1130
Myers Mining P.O. Box 218 Carrollton, OH 44615 330-739-2009 James L. Myers, owner	Harlem Mine #4 (686) Germano Mine-East (746)	Carroll Harrison	29,414 1,691	Cl-HM1 Hn-757	D-1035 D-1054
Northshore Coal, Inc. 100 W. Main St. St. Clairsville, OH 43950 614-695-7237 Charles F. Dawson, pres.	Uniontown (683) Buckeyeville (648) Jacobs (792)	Belmont Guernsey Guernsey	3,987 37,911 18,751	Bt-B Gy-315 Gy-N	D-0998 D-0951 D-1118
Ohio Valley Coal Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 216-765-1240 Robert E. Murray, pres.	Powhatan #6 (3) (u)	Belmont	4,741,214	Bt-68	D-0360
Oxford Mining Co., Inc P.O. Box 427 Coshocton, OH 43812 614-623-0015 Charles C. Ungurean, pres.	Coshocton Landfill (772) Adamsville (716) Z-Mack (764)	Coshocton Muskingum Perry	13,469 42,134 442,490	Cn-OM Mum-O Py-O	D-1104 D-1030 D-1086
Quarto Mining Co. Subsidiary of Consolidation Coal Co. 1029 Market St. Clarington, OH 43915 614-458-2016 Ben Statler, sr. v. pres., mining	Powhatan #4 (215) (u)	Monroe	3,382,895	Me-4	D-0433

1996 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS—Continued

Name, address, telephone number, and president/ owner/manager of company	Name of mine (and map location number)	County	1996 production (tons)	State mine number	Mining and reclamation permit number
R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-2186 D. Michael Jamison, pres.	Bethesda (456)	Belmont	44,727	Bt-1168	D-0619
	Egypt Valley West (731)	Belmont	310,784	Bt-RF2	D-1062
	Wolf-Isleta (577)	Coshocton	398	Cn-RF	D-0689
	Isleta Central (692)	Coshocton	96,312	Cn-RF1	D-1012
	Broken Aro (742)	Coshocton	491,628	Cn-RF3	D-1071
	Ishmael (791)	Coshocton	83,221	Cn-RF4	D-1119
	Wynn-Fausnight (793)	Guernsey	110,104	Gy-307	D-0608
	Hartley (750)	Harrison	91,478	Hn-RF1	D-1076
	Adamsville (798)	Muskingum	13,810	Mum-RF	D-1131
	Dyer-Everhart (785)	Tuscarawas	170,240	Ts-RF	D-1101
R & R Minerals, Inc. 7360 Skyview Rd. Millersburg, OH 44654 330-674-4926 Gary R.Ross, pres.	Fresno-McCleary (695)	Coshocton	24,533	Cn-841	D-1033
Rash Energy, Inc. 3114 U.S. Route 62 Dundee, OH 44624 330-359-5364 Freeman Mullet, pres.	Mt. Eaton Reclamation, Inc. (676)	Wayne	4,028	We-26	IM-690, IM-1210
Sands Hill Coal Co., Inc. P.O. Box 650 Hamden, OH 45634-0650 614-384-4211 Alan C. Arthur, pres.	Coal Valley (787)	Gallia	268,437	Ga-629	D-1095
	Hiram West (653)	Jackson	80,873	Jkn-1071	D-1003
	Bethel Ridge (755)	Jackson	23,540	Jkn-S1	D-1031
	Milton (778)	Jackson	252,702	Jkn-SHCC	D-1108
	Sands Hill Strip #3 (513)	Vinton	648,664	Vn-S	D-0793
Melvin Schaney 47134 Giacobbi Rd. Jewett, OH 43986 614-937-2515 Melvin Schaney, owner	Schaney Pit (748)	Harrison	6,414	Hn-759	D-1037
Schiappa Coal Co., Inc. P.O. Box 728 Steubenville, OH 43952 614-282-5301 Teresa C. Schiappa, pres.	Carson Island (775)	Harrison	75,461	Hn-766	D-1041
	Cherry Valley (795)	Harrison	26,090	Hn-767	D-1124
Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051 Lance Sogan, gen. mgr.	Meigs Mine #31 (212,300) (u)	Meigs, Vinton	3,006,877	Ms-293	D-0354, D-0463
	Meigs Mine #2 (213) (u)	Meigs	2,943,735	Ms-294	D-0355
Sterling Mining Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452 330-549-2165 W. T. Mackall, pres.	Sterling North (657) (u)	Jefferson	271,223	Jfn-823	D-0949
	Sterling South (758) (u)	Jefferson	137,055	Jfn-ST	D-1019
Robert Stewart Mining 88740 Fairview Rd. Jewett, OH 43530 614-946-4291 Robert Stewart, owner	Jolly (794)	Harrison	3,805	Hn-J	D-1096
Sunnydale Mining 88740 Fairview Rd. Jewett, OH 43986 614-946-4291 Robert Stewart, owner	Dodds (749)	Harrison	97	Hn-761	D-1082, D-1097
Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 330-549-3979 J. E. Thompson, pres.	North Lima Mine (205)	Mahoning	3,595	Mg-65	D-0374
Valley Mining, Inc. 4412 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-3942 Mary J. Brown, pres.	Egypt Valley (732)	Belmont	186,816	Bt-VM	D-1059
	Snyder-Bush (696)	Guernsey	85,387	Gy-318	D-1025
	Kurtz (714)	Jefferson	19,224	Jfn-833	D-1049
	Crim (555)	Tuscarawas	19,654	Ts-2005	D-0769
	Elliot-Smith (806)	Tuscarawas	22,836	Ts-VM	D-1125
Varkony Mining Co. P.O. Box 427 Hopedale, OH 43976 614-937-2777 Stephen Varkony, Sr., pres.	Tony Pit (146)	Harrison	69,838	Hn-217	D-0440

1996 OHIO ALPHABETICAL DIRECTORY OF PRODUCING COAL-MINE OPERATORS—Continued

Name, address, telephone number, and president/ owner/manager of company	Name of mine (and map location number)	County	1996 production (tons)	State mine number	Mining and reclamation permit number
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Bowman Strip (165) Allied Pit (420) Dundas (602)	Jackson Vinton Vinton	500,845 224,628 1,007,071	Jkn-367 Vn-184[3] Vn-191	D-0594, D-0968, D-1083 D-0609 D-0867, D-0957, D-1004
Weirton Construction Co. 401 Pennsylvania Ave. Weirton, WV 26062 304-748-1400 Donald R. Donell, pres.	#19 (180)	Jefferson	53,573	Jfn-687	D-0404, D-0939
Frank Widmor Coal Co., Inc. P.O. Box 176 Blaine, OH 43909 614-635-4811 Jay Van Dyne, pres.	Frank Widmor Coal Co., Inc. (603)	Belmont	7,088	Bt-1190	IM-1089, D-1061

[3]This mine was operated January through May 1996 by Benedict, Inc. and June through December 1996 by Waterloo Coal Co., Inc.

1996 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND ASSOCIATED FACILITIES, BY COUNTY

For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C).

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Mining and reclamation permit number	Type of facility
Belmont	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Michael Puskarich, pres.	Bellaire Dock Holloway Tipple	Pultney Flushing	Bt-876 Bt-963	D-0687 D-0763	loading dock tipple
	Marietta Coal Co. 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Loading Dock (3)	Pultney	Bt-936	D-0216	loading dock, prep plant—jig, flotation, centrifugal dryer, crushers, screens
	Ohio River Collieries, Inc. P.O. Box 128 Bannock, OH 43972 614-968-3504 Tony Gentile, pres.	Lafferty Tipple Lafferty Truck Shop	Union Union	Bt-947 Bt-1093	D-0773 D-0773	tipple shop
	Ohio Valley Coal Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 216-765-1240 Robert E. Murray, pres.	Powhatan #6 (4)	Smith, Washington	Bt-68	D-0360	prep plant—jigs, cyclones, centrifuges, thickeners, filters, screens
	Ohio Valley Transloading Co. 56854 Pleasant Ridge Rd. Alledonia, OH 43902 216-765-1240 Robert E. Murray, pres.	Harbour Facility	York	Bt-1198		dock
	R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-2186 D. Michael Jamison, pres.	Bellaire Dock	City of Bellaire	Bt-832	D-0838	dock
	Rayle River Coal 67705 Friends Church Rd. St. Clairsville, OH 43950 614-695-2197 George Nicolozakes, pres.	Rayle River Terminal	Pultney	Bt-1191		coal transfer facility
Carroll	James Bros. Coal Co. 190 S. Main St. P.O. Box 425 Magnolia, OH 44643 330-866-9388 Richard James, Jr., pres.	James Bros. Tipple	Rose	Cl-17	D-0705	tipple
Columbiana	Buckeye Industrial Mining Co. P.O. Box 389 Lisbon, OH 44432 330-337-9511 John C. Grisham, pres.	Kensington Preparation Plant (5) Gavers Preparation Plant (29)	West Wayne	Ca-879 Ca-932	D-0806 D-0532	prep plant—heavy-media washer, cyclone, centrifuges, breaker prep plant—Jeffrey jig system
	C & E Coal, Inc. P.O. Box 333 Lisbon, OH 44432 614-537-1498 Amos L. Rawson, pres.	C & E Coal, Inc. (6)	Madison	Ca-892	D-0599	tipple, prep plant—crushers, screens
	State Line Resources, Inc. Route 154 Negley, OH 44441 330-426-2728 Charles H. Muse, Jr., pres.	State Line Resources, Inc. (33)	Middleton	Ca-505	D-0223	prep plant—crushers, cyclones, screens
Coshocton	Conesville Coal Preparation Co. 14561 Twp. Rd. 263 Conesville, OH 43811 614-687-3209 H. D. Leppla, gen. mgr.	Conesville Coal Preparation Co. (7)	Franklin	Cn-810		prep plant—jig, cyclones, froth cells, flotation, filter press, screens, dryers
	Oxford Mining Co. 1811 Cambridge Rd. P.O. Box 427 Coshocton, OH 43812 614-623-0015 Charles C. Ungurean, pres.	Lori Tipple	Franklin	Cn-736	D-0671	tipple

1996 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND ASSOCIATED FACILITIES, BY COUNTY — Continued

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Mining and reclamation permit number	Type of facility
Coshocton (cont.)	R & F Coal Co. 538 North Main St. Cadiz, OH 43907 614-942-2186 D.Michael Jamison, pres.	Barb Tipple	Franklin	Cn-748	D-0661	tipple
	Sugarcreek Clay & Limestone, Inc. P.O. Box 402 Sugarcreek, OH 44681 330-852-4440 Daniel D. Miller, pres.	Sugarcreek Tipple	Crawford	Cn-825	D-0801	tipple
Gallia	Sands Hill Coal Co., Inc. P.O. Box 650 Hamden, OH 45634-0650 614-384-4211 Alan C. Arthur, pres.	Sands Hill Coal Co., Inc.	Addison	Ga-183	D-0834	tipple
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Waterloo Dock #1 Waterloo Dock #2	Addison Addison	Ga-229 Ga-216	D-0725 D-0739	dock, tipple dock
Harrison	Cravat Coal Co. 40580 Cadiz-Piedmont Rd. Cadiz, OH 43907 614-942-4656 Michael Puskarich, pres.	22 Shop	Moorefield	Hn-230		shop
	Harrison Processing Corp. 86395 Mine Rd. P.O. Box 250 Hopedale, OH 43976 614-942-8220 John A. McNab, pres.	Nelms Prep Plant (30)	Green	Hn-169	D-0424	prep plant—heavy-media vessel, heavy-media cyclones, spirals, dryers, thickeners, crushers, screens
	R & F Coal Co. 539 North Main St. Cadiz, OH 43907 614-942-2186 D. Michael Jamison, pres.	Cadiz Machine Shop	Cadiz	Hn-709		shop
Jackson	Sands Hill Coal Co., Inc. P.O. Box 650 Hamden, OH 45634-0650 614-384-4211 Alan C. Arthur, pres.	Sands Hill Prep Plant (9)	Milton	Jkn-1055	D-0347	prep plant—heavy-media cyclone, hydrocyclones, screens, dryer, crusher, picking table, magnets
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Bowman Strip (10)	Jefferson, Madison	Jkn-367	D-0285	prep plant—jig, crushers, breaker, screens, dryers, wash tables
Lawrence	Collins Mining Co. 981 State Rte. 650 Ironton, OH 45638-8600 614-532-9400 C. E. Collins, v. pres.	River Dock	Hamilton	Le-415	D-0777	dock
Mahoning	East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 330-549-2165 W. T. Mackall, pres.	Tipple Washing & Crushing Plant (13)	Beaver Beaver	Mg-621 Mg-623	 D-0214	tipple prep plant—cyclones, centrifuges, thickener, filter, crushers, screens, magnets
	Thompson Bros. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 330-549-3979 J. E. Thompson, owner	Thompson Bros. Mining Co.	Springfield	Mg-588	D-0711	tipple
Meigs	Southern Ohio Coal Co. P.O. Box 490 Athens, OH 45701 614-286-5051 Lance Sogan, gen. mgr.	Meigs Mine No. 31 (14)	Salem	Ms-293	D-0354	prep plant—heavy-media washers, flotation, cyclones, centrifuges, thickeners, filters, breaker, screens

1996 OHIO DIRECTORY OF COAL-PREPARATION PLANTS AND ASSOCIATED FACILITIES, BY COUNTY — Continued

County	Name, address, telephone number, and president/owner/manager of company	Name of plant (and map location number for coal-preparation plants)	Township	State mine number	Mining and reclamation permit number	Type of facility
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Waterloo Dock #3	Salisbury	Ms-285	D-0698	tipple, dock
Monroe	Quarto Mining Co. (subsidiary of Consolidation Coal Co.) 1029 Market St. Clarington, OH 43915 614-458-2016 Ben Statler, sr. v. pres., mining	Powhatan #4 (15)	Salem	Me-8	D-0422	prep plant—jigs, cyclones, centrifuges, thickeners, filters, crushers
Morgan	Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732 614-962-2013 Gary Dimmerling, gen. mgr.	Muskingum Mine (16)	Meigsville	Ne-41	D-0378, D-0420	tipple, prep plant—jigs, flotation, cyclones, thickener, filters, crushers, breakers, screens, magnets
Perry	Crooksville Coal Co., Inc. P.O. Box 149 Crooksville, OH 43731 614-982-6651 Ralph L. Allen, pres.	Crooksville Tipple	Salt Creek	Py-339	D-0692	tipple
Scioto	Norfolk Southern Railroad 914 Hayport Rd. Wheelersburg, OH 45694 614-574-8491 Charles G. Howard, asst. to mgr.	NS Wheelersburg Terminal	Porter	So-96		dock
Tuscarawas	Central Fuel Co. County Rd. 55 P.O. Box 165 New Philadelphia, OH 44663 330-339-5049 Keith B. Kimble, gen. mgr.	Central Fuel Co. (20)	York	Ts-1938	D-0264	prep plant—jig, screen, dryers
	Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 330-893-2721 Merle Mullet, pres.	Strasburg Wash Plant (21)	Franklin, Lawrence	Ts-1942	D-0287	prep plant— jigs, cyclones, centrifuges, crushers, screens, picking tables
		Slurry Wash Plant (32)	Franklin, Lawrence	Ts-HC	D-0981	prep plant—cyclones
	Miller Mining, Inc. P.O. Box 525 Sugarcreek, OH 44681 330-852-4511 Olen Miller, pres.	Copperhead Tipple	Sugar Creek, Wayne	Ts-MM	D-0652	tipple
		Barrs Mills Tipple	Sugar Creek	Ts-MM1	D-0876	tipple
Vinton	Sands Hill Coal Co., Inc. P.O. Box 650 Hamden, OH 45634 614-384-4211 Alan C. Arthur, pres.	Sands Hill Tipple/ Preparation Plant (24)	Clinton	Vn-641	D-0309, D-0169	tipple, prep plant—heavy-media washers, flotation, cyclones, centrifuge, crushers, screens, dryer, picking tables, magnets
	Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Benedict Tipple	Swan	Vn-145	D-0159	tipple, prep plant—heavy-media washer, cyclone, crusher, conveyors
		Dundas Tipple	Clinton	Vn-178	D-0185	tipple
Wayne	Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 330-893-2721 Merle Mullet, pres.	Holmes Limestone Preparation Plant (27)	Franklin	Hs-79	D-0283	prep plant—jig, crushers, dryers, screens, conveyors

1996 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY

NOTE: This directory lists only the coal-producing operations. It does not list tipples, loading docks, preparation plants, or other active, nonproducing operations that would contribute to employment and wage statistics presented in tables 11-17. For those mines that have not been assigned a state mine number, a letter designation is used (example: Bt-C). There is no correlation between the "Seam Number" column and the "Production Tonnage" column. The Seam Number column represents the seams mined at the operation. No production tonnage is listed by seam. Days in production were estimated for those companies not providing this information. To convert short tons to metric tons, multiply the given tonnage by 0.907185.

SEAM IDENTIFICATION OF PRINCIPAL OHIO COALS

1	Sharon	4A	Clarion	7	Upper Freeport	11	Waynesburg
2	Quakertown	5	Lower Kittanning	7A	Mahoning	12	Washington
3	Lower Mercer	5A	Strasburg	8	Pittsburgh	H	Harlem
3A	Upper Mercer	6	Middle Kittanning	8A	Pomeroy-Redstone	W	Winters
4	Brookville	6A	Lower Freeport	9	Meigs Creek		

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 1996	Disposition		Employment			State mine number
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	Production: Underground	Production: Surface	Non production	
BELMONT COUNTY—Total production = 5,811,028 tons														
Cravat Coal Co.	Rock Hill Pit	Flushing	8	65	surface	strip	10,145	20	water	14,566		1	2	Bt-CCC
						auger	2,119		truck	18,219				
						Total	*12,264*		*Total*	*32,785*				
Fairpoint Coal Co.	Pogue Run	Richland	8	42	surface	auger	1,098	5	truck	1,098		1		Bt-927
K.C.C.I	Susie Mine	Wheeling	8	52	surface	strip	14,146	52	truck	14,146		4		Bt-1179
Marietta Coal Co.	Spragg	Colerain, Wheeling	9		surface	strip	18,139	50	water	38,341				Bt-1172
			11			auger	20,202							
						Total	*38,341*							
	AT&T	Kirkwood, Union	8		surface	strip	110,831	150	water	234,266		9	29	Bt-AT[1]
						auger	123,435							
						Total	*234,266*							
	Ohio Fireworks	Pease, Pultney	9	36	surface	strip	9,783	30	water	20,679				Bt-1150
			11	29		auger	10,896							
						Total	*20,679*							
	North American-Thornton	Richland	11	36	surface	strip	12,195	40	water	25,777				Bt-1162
						auger	13,582							
						Total	*25,777*							
	Dyrdek-Poe et al.	Richland	9		surface	strip	61,162	130	water	129,279				Bt-M2
						auger	68,117							
						Total	*129,279*							
	Denham-Albaugh et al.	Smith	11	44	surface	strip	19,190	70	water	40,562				Bt-1164
						auger	21,372							
						Total	*40,562*							
Northshore Coal, Inc.	Uniontown	Wheeling	8	60	surface	auger	3,987	40	truck	3,987		1		Bt-B
Ohio Valley Coal Co.	Powhatan #6	Smith, Washington	8	62	slope	longwall	3,967,484	283	rail	3,846,104	195		204	Bt-68
						cont. miner	773,730		truck	898,030				
						Total	*4,741,214*		*Total*	*4,744,134*				
R & F Coal Co.	Bethesda	Goshen, Wayne	9	35	surface	strip	25,328	228	truck	44,727		9	2	Bt-1168
						auger	19,399							
						Total	*44,727*							

	Egypt Valley West	Kirkwood, Warren	9	33	surface	strip auger *Total*	281,426 29,358 *310,784*	232	truck	310,784		25	4	Bt-RF2
Valley Mining, Inc.	Egypt Valley	Kirkwood, Warren	9	36	surface	strip auger *Total*	161,623 25,193 *186,816*	272	truck	186,816		13	2	Bt-VM
Frank Widmor Coal Co., Inc.	Frank Widmor Coal Co., Inc.	Pultney	8 9	72 46	surface	strip	7,088	10	truck	7,088		1	3	Bt-1190
CARROLL COUNTY—Total production = 253,095 tons														
Buckeye Industrial Mining Co.	R & T	Fox	7A	24	surface	strip auger *Total*	134,168 30,589 *164,757*	309	truck	164,757		14	2	Cl-BIM
Miller Mining, Inc.	Geiger-Carroll Mine	Brown	5,6,6A		surface	strip	58,924	73	rail truck *Total*	10,353 47,164 *57,517*		8		Cl-514
Myers Mining	Harlem Mine #4	Lee	H	20	surface	strip	29,414	306	truck	29,414		3	1	Cl-HM1
COLUMBIANA COUNTY—Total production = 804,553 tons														
Buckeye Industrial Mining Co.	McPherson	Franklin	7A	24	surface	strip auger *Total*	5,679 7,743 *13,422*	78	truck	13,422		4	1	Ca-BIM
C & E Coal, Inc.	Mountain Spring #15	Madison	7	44	drift	cont. miner	161,962	210	truck	161,962	22		4	Ca-349
	West Point	Madison	7A	35	drift	cont. miner	293,444	260	truck	220,318	20		9	Ca-987
	Mountain Spring #11	Madison	7A	44	drift	cont. miner	136,652	199	truck	136,652	16		4	Ca-1003
	Amato	Center, Wayne	6	40	surface	strip auger *Total*	58,344 19,941 *78,285*	134	truck	77,856		8	1	Ca-986
Commercial Minerals, Inc.	Miller	Center, Elkrun	6	40	surface	auger	6,571	10	truck	6,571		1	3	Ca-892
	Ferris	Elkrun	6	38	surface	strip	2,355	8	truck	1,785		1	1	Ca-CE
	Buckeye Rd.	Madison	7	36	surface	strip	42,177	162	truck	42,177		5	1	Ca-997
	Ketchum North	Center	7	29	surface	strip auger *Total*	8,451 11,380 *19,831*	74	truck	19,831		4	1	Ca-998
	Ketchum East	Center, Wayne	7	29	surface	strip auger *Total*	1,800 6,886 *8,686*	34	truck	8,686		2	1	Ca-CM
D. & D. Mining Co.	Saviers Mine	Unity	4 5	27 12	surface	strip auger *Total*	38,637 1,781 *40,418*	220	truck	40,418		3	7	Ca-348
Mardis Coal Co.	Jarvis	Hanover	7		surface	strip	750	3	truck	750		1	1	Ca-MC
COSHOCTON COUNTY—Total production = 756,361 tons														
Miller Mining, Inc.	Snyder	Crawford	5, 6		surface	strip	46,800	59	rail truck *Total*	8,223 37,459 *45,682*		4		Cn-TS[2]
Oxford Mining Co., Inc.	Coshocton Landfill	Franklin	6		surface	strip	13,469	107	truck	13,469		1		Cn-OM
R & F Coal Co.	Broken Aro	Bedford, Jackson	5 6	21 43	surface	strip auger *Total*	489,748 1,880 *491,628*	218	truck	485,541		39	7	Cn-RF3
	Ishmael	Bedford, Washington	6	33	surface	strip	83,221	99	truck	83,221		5	1	Cn-RF4

[1]Employment reported for Bt-AT is a summary for all Marietta Coal Co. operations.
[2]See also Tuscarawas County.

1996 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 1996	Disposition		Employment			State mine number
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	Production: Underground	Production: Surface	Non production	
COSHOCTON COUNTY (continued)														
R & F Coal Co. (cont.)	Wolf-Isleta	Oxford	5	18	surface	strip	137	2	truck	398		1	2	Cn-RF
						auger	261							
						Total	*398*							
	Isleta Central	Oxford	5	18	surface	strip	81,324	123	truck	96,312		12	5	Cn-RF1
			6	28		auger	14,988							
						Total	*96,312*							
R & R Minerals, Inc.	Fresno-McCleary	White Eyes	5	26	surface	strip	24,533	165	truck	24,533		2		Cn-841
			6	28										
GALLIA COUNTY—Total production = 268,437														
Sands Hill Coal Co., Inc.	Coal Valley	Huntington	6	74	surface	strip	268,437	306	water	28,307		12		Ga-629
			6A	11					truck	56,579				
									conveyor	183,551				
									Total	*268,437*				
GUERNSEY COUNTY—Total production = 295,967 tons														
Holmes Limestone Co.	Byesville	Jackson	5, 6	30	surface	strip	43,814	268	truck	43,814		5		Gy-327
Northshore Coal, Inc.	Buckeyeville	Jackson	7	60	surface	strip	37,911	264	truck	37,911		9	1	Gy-315
	Jacobs	Jackson	7	44	surface	strip	18,751	108	truck	19,157		5		Gy-N
R & F Coal Co.	Wynn-Fausnight	Wheeling	5	18	surface	strip	108,066	78	truck	110,104		11	2	Gy-307
			6	28		auger	2,038							
						Total	*110,104*							
Valley Mining, Inc.	Snyder-Bush	Wheeling	6	27	surface	strip	53,880	251	truck	85,387		8	3	Gy-318
						auger	31,507							
						Total	*85,387*							
HARRISON COUNTY—Total production = 1,394,168 tons														
Cravat Coal Co.	Oak Park Pit	Cadiz	8	42	surface	strip	5,470	9	truck	5,470		1	1	Hn-C
Harrison Mining Corp.	Nelms Mine-Cadiz Portal	Green	6A	60	slope	cont. miner	1,112,567	354	rail	470,455	74		40	Hn-710
									water	58,675				
									truck	600,787				
									Total	*1,129,917*				
K.C.C.I.	Apex	German	8		surface	strip	675	3	truck	675		1		Jfn-K[3]
Miller Mining, Inc.	Harrison Mine	Rumley	8		surface	strip	582	1	rail	118		1		Hn-762
									truck	450				
									Total	*568*				
Myers Mining	Germano Mine-East	German	8	50	surface	strip	1,691	5	truck	1,691		1		Hn-757
R & F Coal Co.	Hartley	Athens	9	50	surface	strip	72,179	97	truck	91,478		7	2	Hn-RF1
						auger	19,299							
						Total	*91,478*							
Melvin Schaney	Schaney Pit	Green	8	48	surface	strip	6,414	130	truck	6,414		2		Hn-759
Schiappa Coal Co., Inc.	Carson Island	Green	8	56	surface	strip	75,461	213	truck	75,461		14	1	Hn-766[3,4]
			8A	20										
	Cherry Valley	Green	8	56	surface	strip	26,090	118	truck	26,090				Hn-767
			8A	20										
Robert Stewart Mining	Jolly	Archer, Cadiz	8		surface	strip	3,805	10	truck	3,805		1		Hn-J
Sunnydale Mining	Dodds	Archer	8	50	surface	strip	97	3	truck	97		1		Hn-761
Varkony Mining Co.	Tony Pit	Green	8	54	surface	strip	69,838	204	truck	69,838		7	1	Hn-217
			8A	16										

HOLMES COUNTY—Total production = 181,390 tons														
Holmes Limestone Co.	Charm-Berlin	Berlin, Walnut Creek	5, 6	30	surface	strip	121,586	285	truck	121,586		6	1	Hs-HLC1
	557	Clark	5, 6	30	surface	strip	46,460	236	truck	46,460		5	1	Hs-HL
	241 Plant	Hardy	4	30	surface	strip	13,344	144	truck	13,344		4	1	Hs-67
JACKSON COUNTY—Total production = 1,119,583 tons														
Cedar Heights Clay Co.	Harrison	Madison	5		surface	strip	3,616	10	truck	3,616		1		Jkn-CH2
R. A. Eberts Co., Inc.	Dark Hollow	Jefferson	3	24	surface	strip	183,772	227	truck	183,772		16	2	Jkn-1070
	Carr Ridge-Rittenour	Milton	3	24	surface	strip	74,235	69	truck	74,235		4	2	Vn-192[5]
			4A	24										
			5	12										
Sands Hill Coal Co., Inc.	Bethel Ridge	Liberty	1	22	surface	strip	23,540	30	water	2,482		34	3	Jkn-S1[6]
									truck	4,962				
									conveyor	16,096				
									Total	*23,540*				
	Hiram West	Minton	4A	42	surface	strip	80,873	227	water	8,528				Jkn-1071
			5	29					truck	17,046				
									conveyor	55,299				
									Total	*80,873*				
	Milton	Milton	5	29	surface	strip	252,702	306	water	26,647				Jkn-SHCC
			6	13					truck	53,263				
			6A	13					conveyor	172,792				
									Total	*252,702*				
Waterloo Coal Co., Inc.	Bowman Strip	Bloomfield, Madison	4A	48	surface	strip	500,845	291	truck	500,845		35	38	Jkn-367
			5	34										
			6											
JEFFERSON COUNTY—Total production = 762,709 tons														
Anthony Mining Co., Inc.	Sapp	Knox, Saline	8	48	surface	strip	30,237	152	truck	30,237		18	2	Jfn-830[7]
	Omaits	Smithfield, Wayne	8	56	surface	strip	145,756	270	truck	149,016				Jfn-835
			8A	20		auger	3,260							
						Total	*149,016*							
Cravat Coal Co.	Salt Run	Wells	8	48	surface	strip	29,230	65	water	18,382		3	2	Jfn-JC[8]
						auger	21,385		truck	29,555				
						Total	*50,615*		*Total*	*47,937*				
F. & M. Coal Co.	F. & M. Strip	Wayne	8	54	surface	strip	13,410	311	truck	13,410		3		Jfn-784
Joyce Coal Co., Inc.	Salt Run	Wells	8		surface	strip	16,615	86	truck	37,680		5		Jfn-JC[8]
						auger	21,065							
						Total	*37,680*							
K.C.C.I.	Apex	Springfield	8		surface	strip	676	3	truck	676		1	1	Jfn-K[9]
Sterling Mining Co.	Sterling North	Brush Creek	7A	36	drift	cont. miner	271,223	203	truck	271,223	32		12	Jfn-823
	Sterling South	Brush Creek	7A	36	drift	cont. miner	137,055	104	truck	137,055	32		12	Jfn-ST
Valley Mining, Inc.	Kurtz	Smithfield	8	55	surface	strip	8,840	205	truck	19,224		1	2	Jfn-833
						auger	10,384							
						Total	*19,224*							
Weirton Construction Co.	#19	Wells	8	54	surface	strip	22,190	192	truck	53,573		2	6	Jfn-687
						auger	31,383							
						Total	*53,573*							
LAWRENCE COUNTY—Total production = 3,917 tons														
Belville Mining Co., Inc.	Brady Creek	Washington	4	15	surface	strip	3,917	10	truck	3,917		1		Le-B

[3]See also Jefferson County.
[4]Employment reported for Hn-766 is a summary for all Schiappa Coal Co., Inc. operations.
[5]See also Vinton County.
[6]Employment reported for Jkn-S1 is a summary for all Sands Hill Coal Co., Inc. operations in Jackson County.
[7]Employment reported for Jfn-830 is a summary for all Anthony Mining Co., Inc. operations.
[8]This mine was operated January through June 1996 by Joyce Coal Co, Inc. and July through December 1996 by Cravat Coal Co.
[9]See also Harrison County.

1996 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 1996	Disposition		Employment			State mine number
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	Production: Underground	Production: Surface	Non production	
MAHONING COUNTY—Total production = 3,595 tons														
Thompson Bros. Mining Co.	North Lima Mine	Beaver	4	28	surface	strip	3,595	32	truck	3,595		1	1	Mg-65
MEIGS COUNTY—Total production = 4,447,174 tons														
Southern Ohio Coal Co.	Meigs Mine #2	Columbia	4A	57	shaft	longwall cont. miner *Total*	2,716,292 227,443 *2,943,735*	260	conveyor	2,972,334	213		96	Ms-294
	Meigs Mine #31	Salem	4A	57	shaft	longwall cont. miner *Total*	1,277,526 225,913 *1,503,439*	133	conveyor	1,512,087	116		135	Ms-293[10]
MONROE COUNTY—Total production = 3,382,895 tons														
Quarto Mining Co. (subsidiary of Consolidation Coal Co.)	Powhatan #4	Salem	8	60	shaft	longwall cont. miner *Total*	2,939,852 443,043 *3,382,895*	249	water	3,686,906	223		125	Me-4
MORGAN COUNTY—Total production = 1,542,123 tons														
Central Ohio Coal Co.	Muskingum Mine	Bristol, Manchester, Meigsville	9	48	surface	strip	1,542,123	212	other conveyor *Total*	2 1,543,496 *1,543,498*		41	178	Ne-41
MUSKINGUM COUNTY—Total production = 55,944 tons														
Oxford Mining Co.	Adamsville	Madison	6, 6A		surface	strip auger *Total*	35,734 6,400 *42,134*	311	truck	42,134		14	3	Mum-O
R & F Coal Co.	Adamsville	Madison	6	28	surface	strip	13,810	12	truck	13,810		1	1	Mum-RF
NOBLE COUNTY—Total production = 814,794 tons														
B & N Coal, Inc.	Lee	Elk	9	36	surface	strip	108,845	258	truck	108,845		8	1	Ne-155
	Flint	Elk	9	36	surface	strip	23,118	237	truck	23,118		2	1	Ne-BN1
	Estadt	Enoch, Jefferson	9	30	surface	strip	147,412	257	truck	147,412		10	1	Ne-BN
	Ullman	Elk	9	36	surface	strip	109,410	257	truck	109,410		9	1	Ne-151
	Barnes Ridge	Marion	9	42	surface	strip	127,241	129	truck	127,241		5	1	Ne-BN2
	Pourhouse	Marion, Stock	9	42	surface	strip	298,768	257	truck	298,768		14	1	Ne-154
PERRY COUNTY—Total production = 899,224 tons														
Avis Coal Co.	Congo	Monroe, Pleasant, Salt Lick	6 6A	60 72	surface	strip auger *Total*	174,936 74,053 *248,989*	316	truck	248,989		19	5	Py-A
Buckingham Coal Co., Inc.	Thompson	Monroe	7	42	surface	strip	1,158	3	truck	1,158		1		Py-340
	Brown-Wilson	Monroe, Pleasant	6	60	surface	strip	2,677	4	truck	1,377		1	1	Py-BC1
	Walton	Salt Lick	6	78	surface	strip	56,937	157	truck	58,313		1		Py-BC
			6A	15		auger *Total*	1,376 *58,313*							
	Pine Run	Salt Lick	6	54	surface	strip	90,100	316	truck	114,638		19	6	Py-BM1
			6A	16		auger *Total*	23,112 *113,212*							

	Imler	Salt Lick	6	84	surface	strip	32,385	316	truck	30,451	2		Py-BM2
			6A	14									
			7	48									
Oxford Mining Co., Inc.	Z-Mack	Clayton, Pike	5, 6		surface	strip	442,490	307	truck	442,490	20	7	Py-O
STARK COUNTY—Total production = 547,631 tons													
American Landfill, Inc.	American Landfill, Inc.	Sandy	6	36	surface	strip	18,444	149	truck	18,444	15	3	Sk-246
			6A	36									
Buckeye Industrial Mining Co.	Robertsville	Paris	6	30	surface	strip	178,607	309	truck	214,323	12	2	Sk-BI
						auger	35,716						
						Total	*214,323*						
	Close	Pike	5		surface	strip	8,912	154	truck	8,912	1	1	Sk-B
ENZ, Inc.	Sickafoose Pit	Sandy	4	48	surface	strip	141,432	306	truck	141,432	16	6	Sk-208
Holmes Limestone Co.	Bolivar Mine	Bethlehem	5, 6	30	surface	strip	35,006	252	truck	35,006	3		Sk-235
	East Canton	Osnaburg	5, 6	30	surface	strip	129,514	302	truck	129,514	9		Sk-HCC
TUSCARAWAS COUNTY—Total production = 1,321,894 tons													
Belden Brick Co.	Wallick Pit	Franklin, Wayne	4		surface	strip	4,956	10	truck	4,956	1	1	Ts-1841
	Moomaw Pit	Sugar Grove	4		surface	strip	2,137	8	truck	2,137	1	1	Ts-1517
	Belden Pit	Sugar Grove	3A		surface	strip	2,248	8	truck	2,248	1	1	Ts-1646
Blue Jay Enterprises of Ts. Co., Inc.	Swonger-Waltz Mine	Sandy	4		surface	strip	1,378	23	truck	1,378	1	1	Ts-520
Daron Coal Co., Inc.	Pleasant Valley Mine	Union	6A	30	surface	strip	37,639	152	truck	46,747	3	2	Ts-1991
			7	30		auger	9,108						
						Total	*46,747*						
	Reed Mine	Union	6	42	surface	strip	68,019	128	truck	92,715	6	1	Ts-DC
						auger	24,696						
						Total	*92,715*						
	Peach Pit	Union	7	20	surface	strip	22,130	40	truck	31,668	2		Ts-DCC
						auger	9,538						
						Total	*31,668*						
Holmes Limestone Co.	Stone Creek	Jefferson, York	7	30	surface	strip	152,427	302	truck	155,177	9		Ts-2023
						auger	2,750						
						Total	*155,177*						
	Dennison	Rush	7	30	surface	strip	58,273	285	truck	69,389	7		Ts-HLC
						auger	11,116						
						Total	*69,389*						
	Rainsberg Farm	Rush	7	24	surface	strip	2,579	10	truck	2,579	1	1	Ts-H1
Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Auburn, York	5	28	surface	strip	111,240	281	truck	130,114	8	1	Ts-2019
			6	36		auger	18,874						
						Total	*130,114*						
	Kimble Clay & Limestone Co.	Dover	4	20	surface	strip	50,925	196	truck	50,925	2	1	Ts-1727
			5	28									
			6	36									
	Casebeer	Sugar Creek	3A, 4		surface	strip	46,940	227	truck	46,940	3	1	Ts-K4
	Kimble Clay & Limestone Co.	Washington	6		surface	strip	14,197	211	truck	19,284	2	1	Ts-2031
						auger	5,087						
						Total	*19,284*						
L & M Mineral Co.	Luikert	Mill, Warwick	5, 6		surface	strip	3,862	9	truck	3,862	1	1	Ts-1914
	Ridgeway et al.	Rush	6A, 7		surface	strip	29,195	200	truck	29,195	5	3	Ts-2041
Red Malcuit, Inc.	RMI #2	Franklin, Wayne	5	36	surface	strip	24,667	193	truck	24,667	4		Ts-2007
			5A	12									

[10]See also Vinton County.

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IL GEOLOGICAL SURVEY

1996 OHIO DIRECTORY OF PRODUCING COAL-MINE OPERATORS, BY COUNTY—Continued

Name of company	Name of mine	Township	Seam		Type of mine	Production		Days in production in 1996	Disposition		Employment			State mine number
			Number	Thickness (inches)		Method	Tonnage		Method	Tonnage	Production: Underground	Production: Surface	Non production	
TUSCARAWAS COUNTY (continued)														
Miller Mining, Inc.	General Clay-Scarr et al.	Auburn, Bucks	5, 6		surface	strip	1,444	3	rail truck *Total*	254 1,156 *1,410*		1	1	Ts-GC
	Ragersville-Putt	Auburn, Bucks	5, 6		surface	strip	139,307	175	rail truck *Total*	24,476 111,504 *135,980*		12	1	Ts-MM3
	Snyder	Bucks	5, 6		surface	strip	46,800	60	rail truck *Total*	8,223 37,460 *45,683*		4	1	Cn-TS[11]
	Wilmar Farms-Marino	Dover	3A, 4		surface	strip	24,303	32	rail truck *Total*	4,270 19,453 *23,723*		3	1	Ts-2039
	Alpine Hills	Dover	6, 6A		surface	strip	11,645	15	rail truck *Total*	2,046 9,321 *11,367*		1	1	Ts-MM5
	Tunnel Hill	Sandy	6	42	surface	strip	76,545	96	rail truck *Total*	14,157 64,491 *78,648*		6	1	Ts-2040
	Mushrush	Sandy	5, 6		surface	strip	87,388	108	rail truck *Total*	14,647 66,723 *81,370*		8		Ts-AL
	Coblentz	Sugar Creek	3A		surface	strip	7,751	13	rail truck *Total*	1,362 6,204 *7,566*		1		Ts-MM4
R & F Coal Co.	Dyer-Everhart	Salem	6	27	surface	strip auger *Total*	166,395 3,845 *170,240*	178	truck	170,240		17	3	Ts-RF
Valley Mining, Inc.	Crim	Mill	7	30	surface	strip auger *Total*	16,566 3,088 *19,654*	238	truck	19,654		3	2	Ts-2005
	Elliot-Smith	Salem	6	36	surface	strip auger *Total*	21,826 1,010 *22,836*	86	truck	22,836		1	1	Ts-VM
VINTON COUNTY—Total production = 3,598,346 tons														
Benedict, Inc.	Allied	Elk	3A 4 5	30 36 24	surface	strip	77,989	132	truck	77,989		5	3	Vn-184[12]
	Daft Pit	Elk	3A	32	surface	strip	15,694	121	truck	15,694		1	3	Vn-177
	Mitchell Hollow	Swan	4 5	30 15	surface	strip	46,626	122	truck	46,626		3	3	Vn-172
R. A. Eberts Co., Inc.	Carr Ridge-Rittenour	Clinton	3 4A 5	24 24 12	surface	strip	74,236	68	truck	74,236		4	2	Vn-192[13]
Sands Hill Coal Co., Inc.	Sands Hill Strip #3	Clinton	W 4A 5 6	30 21 29 30	surface	strip	648,664	306	water truck conveyor *Total*	68,402 136,721 443,541 *648,664*		29	61	Vn-S

Southern Ohio Coal Co.	Meigs Mine #31	Wilkesville	4A	57	drift	longwall cont. miner *Total*	1,277,525 225,913 *1,503,438*	133	conveyor	1,512,087	116		135	Ms-293[14]
Waterloo Coal Co., Inc.	Dundas	Clinton	3 4A 5 6 7	24 24 24 24	surface	strip	1,007,071	292	truck	1,007,071		55	26	Vn-191
	Allied Pit	Elk	4A 5 6	30 24 25	surface	strip	224,628	135	truck	224,628		8	8	Vn-184[12]
WASHINGTON COUNTY—Total production = 54,917 tons														
B & N Coal, Inc.	Shilling	Aurelius	9	36	surface	strip	54,917	258	truck	54,917		4	1	Ne-1008
WAYNE COUNTY—Total production =4,028 tons														
Rash Energy, Inc.	Mt. Eaton Reclamation, Inc.	Paint	5, 6		surface	strip	4,028	10	truck	4,028		1		We-26

[11]See also Coshocton County.
[12]This mine was operated January through May 1996 by Benedict, Inc. and June through December 1996 by Waterloo Coal Co., Inc.
[13]See also Jackson County.
[14]See also Meigs County.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Ts-A).
If there are no sales or production figures given for an operation, that operation reported no sales or production in 1996.
To convert short tons to metric tons, multiply the tonnage given by 0.907185.

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
A-1 All Ohio Sand & Gravel Co. 2267 Springfield Center Rd. Akron, OH 44312 330-644-0700 Sam Serves, pres.	A-1 All Ohio Sand & Gravel Co. (583)	Summit	sand & gravel	136,373	136,373	St-50	IM-722
ATS Enterprises P.O. Box 128 Haverhill, OH 45636 614-532-4058 Lowell Gullett, plant mgr.	Haverhill (306)	Scioto	sand & gravel	362,980	342,245	So-79	IM-221
Acme Sand & Gravel 128 First St. W Strasburg, OH 44680 330-756-3177 Susan K. Malcuit, owner	Acme Sand & Gravel (612)	Tuscarawas	sand & gravel			Ts-A	IM-1218
Adrian Sand & Stone 7901 Sylvania Ave. Sylvania, OH 43560 419-885-4658 Jeffrey Stansley, v.p. operations	Country Club Acres (196)	Hancock	limestone			Hk-A	IM-1299
Agg Rok Materials Div. of Wapak Sand & Gravel Co. 711 Frank Rd. Columbus, OH 43223 614-875-5500 Ralph E. Heffner, pres.	Agg Rok Materials (94)	Franklin	sand & gravel	555,618	555,618	Fn-36	IM-302
Akzo Nobel Salt, Inc.[1] P.O. Box 6920 Cleveland, OH 44101 216-651-7200 Harry Burns, pres.	Cleveland Mine (1)	Cuyahoga	salt	2,878,703	2,516,575	Cya-30	
Akzo Nobel Salt, Inc.[1] 2065 Manchester Rd. Akron, OH 44309-0149 330-745-0031 Harry Burns, pres.	Akron Mine (4)	Summit	salt	244,630	251,075	St-9127	
Alan Stone Co., Inc. P.O. Box 127 Chesterhill, OH 43728 614-554-6191 Claudia Staley, pres.	Marietta Quarry (51) Alan Stone Co., Inc. (43)	Belmont Washington	sandstone sandstone			Bt-1193 Wn-45	IM-1117 IM-125
William Albert, Inc. 1300 Cassingham Hollow Rd. Coshocton, OH 43812 614-622-3045 William Albert, pres.	William Albert, Inc. (438) (88)	Coshocton	sand & gravel clay	33,041	35,042	Cn-828	IM-1026
Alden Sand & Gravel Co. 2504 Northampton Rd. Cuyahoga Falls, OH 44223 330-928-3249 Joanne Alden, pres.	Alden Sand & Gravel Co. (496)	Summit	sand & gravel			St-55	IM-589
Allgeier & Son, Inc. 6386 Bridgetown Rd. Cincinnati, OH 45248 513-574-3735 Earl W. Allgeier, pres.	Pit #2 (467) Pit #1 (521)	Hamilton Hamilton	sand & gravel sand & gravel	87,000	87,000	Hmn-AS Hmn-AS1	IM-1106 IM-797
Allied Corp., Inc. 1749 Highland Dr. Twinsburg, OH 44087 216-425-7861 Charles Rauh, pres.	Allied Corp., Inc. (435)	Stark	sand & gravel			Sk-173	IM-879

[1]Akzo Nobel Salt, Inc. was purchased by Cargill Incorporated in April 1997.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
American Aggregates Corp.[2]	Hamilton #710 (29)	Butler	sand & gravel	822,846	745,659	Br-5	IM-153
P.O. Box 147515	Fairfield #711 (30)	Butler	sand & gravel	1,615,474	1,775,687	Br-35	IM-200
Dayton, OH 45413-7515	Springfield #423 (16)	Clark	limestone			Ck-1	IM-373
937-454-1128	Fairborn #413 (52)	Clark	sand & gravel	688,884	736,445	Ck-13	IM-366
Geoff C. Harris, pres.	Fort Jefferson #424 (19)	Darke	limestone	172,343	153,910	Dke-1	IM-362
	Delaware Stone #227 (22)	Delaware	limestone	648,937	635,094	Del-3	IM-327
	Shawnee #225 (20)	Delaware	limestone	731,689	747,681	Del-4	IM-262
	Blue Rock Limestone #427 (27)	Fayette	limestone	264,822	385,183	Fe-2	IM-169
	Sugar Creek Plant #223 (29)	Fayette	limestone			Fe-3	IM-329
	Marble Cliff #224 (30)	Franklin	limestone	1,674,348	1,523,342	Fn-2	IM-261
	Columbus #210 (95)	Franklin	sand & gravel	1,354,520	1,289,181	Fn-6	IM-185
	Lockbourne #213 (96)	Franklin	sand & gravel			Fn-23	IM-183
	Columbus Limestone #221 (31)	Franklin	limestone	3,588,433	3,320,128	Fn-53	IM-185
	Cedarville Limestone #425 (32)	Greene	limestone	357,475	344,577	Ge-17	IM-435
	Fairborn Limestone #431 (142)	Greene	limestone	230,407	136,100	Ge-25	IM-437
	Haines Rd. #419 (405)	Greene	sand & gravel	98,019	57,124	Ge-32	IM-400
	Xenia #414 (110)	Greene	sand & gravel	484,041	495,831	Ge-33	IM-379
	Spring Valley Gravel #434 (404)	Greene	sand & gravel	561,000	542,981	Ge-42	IM-954
	Beavercreek Limestone #426 (155)	Greene	limestone			Ge-45	IM-364
	Harrison #712 (118)	Hamilton	sand & gravel	1,340,734	1,271,881	Hmn-37	IM-170
	Campbell Rd. #715 (407)	Hamilton	sand & gravel			Hmn-69	IM-969
	Kilby Rd. #713 (119)	Hamilton	sand & gravel			Hmn-AAC	IM-716
	East Liberty #226 (49)	Logan	limestone	471,156	513,476	Lgn-1	IM-574
	Troy Gravel #433 (219)	Miami	sand & gravel	330,622	256,930	Mi-3	IM-462, IM-658
	Piqua Gravel #430 (216)	Miami	sand & gravel			Mi-6	IM-356
	Tipp City Gravel #435 (220)	Miami	sand & gravel			Mi-8	IM-355
	Phillipsburg Limestone #421 (70)	Montgomery	limestone	1,089,048	928,695	My-1	IM-374
	Dayton Limestone #420 (71)	Montgomery	limestone			My-23	IM-368
	Huber Heights Limestone #432 (143)	Montgomery	limestone	461	59	My-32	IM-1012
	Rip Rap Road #416 (224)	Montgomery	sand & gravel	204,396	108,704	My-66	IM-677
	American Aggregates Corp. (571)	Preble	sand & gravel			Pre-AAC	IM-779
	Franklin #714 (349)	Warren	sand & gravel	712,336	636,118	Wan-38	IM-615
American Landfill, Inc.	American Landfill, Inc. (123)	Stark	clay	1,812	1,812	Sk-246	IM-1114
1 American Way	(123)		shale	7,987	7,987		
Warren, OH 44484							
330-856-8800							
Stephen Kilper, pres.							
American Sand & Gravel	American Sand & Gravel (387)	Portage	sand & gravel			Pe-ASG	IM-212
8188 Wales Rd. NW	American Sand & Gravel (386)	Stark	sand & gravel	1,200	1,200	Sk-203	IM-654
North Canton, OH 44720	Crystal Springs (455)	Stark	sand & gravel	993,800	993,800	Sk-243	IM-908
330-494-6455							
Christopher Scala, pres.							
Apache Aggregate & Paving Co.	Apache Aggregate & Paving Co. (69)	Coshocton	sand & gravel			Cn-718	IM-227
46626 County Rte. 495	Apache Aggregate & Paving Co. (70)	Coshocton	sand & gravel	148,301	158,863	Cn-783	IM-717
Coshocton, OH 43812							
614-622-5904							
Charlene Ross, pres.							
Ashcraft Sand & Gravel, Inc.	Ashcraft Sand & Gravel, Inc. (120)	Hamilton	sand & gravel	86,361	86,361	Hmn-54	IM-710
5850 Dry Fork Rd.							
Cleves, OH 45002							
513-367-5700							
Rick Ashcraft, v. pres.							
Athens County	Athens County (180)	Athens	clay	131,250	131,250	As-AC	IM-1272
County Courthouse							
15 S. Court St.							
Athens, OH 45701							
614-592-4431							
Joe Kasler, project admin.							
Athens Hocking Reclamation Center	Athens Hocking Reclamation Center (81)	Athens	clay	1,610	1,610	As-594	
35380 Hocking Dr.							
P.O. Box 946							
Logan, OH 43138							
614-385-6019							
Edward F. Kilbarger, pres.							
Atlas Towing Co.	Belpre Bank Run (432)	Washington	sand & gravel	17,150	0	Wn-54	IM-383
P.O. Box 1632							
Parkersburg, WV 26101							
304-428-0341							
Christopher V. Criss, pres.							

[2]American Aggregates Corp. was purchased by Martin Marietta Aggregates in May 1997.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Aurora Sand & Gravel, Inc. 60 Treat Rd. Aurora, OH 44202 216-641-0300 Gary Helf, pres.	Aurora Sand & Gravel, Inc. (260)	Portage	sand & gravel			Pe-84	IM-868
Ayers Limestone Quarry, Inc. 2000 Colerain Pike P.O. Box 67 Martins Ferry, OH 43935 614-633-2958 Thomas E. Ayers, pres.	Ayers Limestone Quarry, Inc. (12)	Belmont	limestone	129,554	129,554	Bt-716	IM-1
B & L Excavating 203 W. Airport Highway Swanton, OH 43558 419-825-1218 Boyd Rhodes, owner	B & L Excavating (638) B & L Pit (654)	Fulton Fulton	sand & gravel sand & gravel			Ftn-BL Ftn-BL1	IM-1260 IM-1282
B & L Sand Co. 441 Iowa St. Ashland, KY 41101 606-325-8301 Janet R. Griffiths, pres.	B & L Sand (167)	Lawrence	sand & gravel	67,000	67,000	Le-430	IM-844
B-M Machine Co. 12264 Princeton Rd. Huntsburg, OH 44046 216-635-9151 Robert Zalar, owner	B-M Machine Co. (442)	Geauga	sand & gravel			Gea-39	IM-974
B & N Coal, Inc. P.O. Box 100 Dexter City, OH 45727 614-783-3575 Carl Baker, Jr., pres.	B & N Coal, Inc. (179)	Noble	limestone			Ne-B	IM-897
Baker Sand, Inc. 7800 White Rd. Burbank, OH 44214 330-948-1448 John E. Baker, pres.	Baker Sand, Inc. (203)	Medina	sand & gravel	767,458	767,458	Ma-20	IM-448
Barrett Paving Materials, Inc. Midwest South 7374 Main St. Cincinnati, OH 45244 513-271-6200 Xavier Lepercq, pres.	Perintown (59)	Clermont	sand & gravel	80,833	233,749	Ct-9	IM-526
Barrett Paving Materials, Inc. Midwest North P.O. Box 14591 Dayton, OH 45413-0591 937-773-1933 Chris Ziehler, asst. mgr.	Fairborn #141 (461) Gregory Quarry (66) Barrett Paving Materials, Inc. (177)	Clark Miami Miami	sand & gravel limestone limestone	447,000 405,000	484,000 414,000	Ck-28 Mi-502 Mi-BPM	IM-1100 IM-414 IM-1169
Barrett Paving Materials, Inc. 3835 Centennial Rd. Sylvania, OH 45860 419-841-2816 Michael E. Smith, plant mgr.	Sylvania Quarry (160)	Lucas	limestone	358,000	358,000	Ls-12	IM-953
Baycliffs Corp. 15400 Pearl Rd. #201 Strongsville, OH 44136 216-238-1905 Carl Zipfel, pres.	Baycliffs Corp. (198)	Ottawa	limestone			Oa-BC	IM-1288
Beaver Excavating, Inc. P.O. Box 6059 Canton, OH 44706 330-484-2151 Mark Sterling, pres.	Stone Products (607) (162)	Stark	sand & gravel clay	2,028	2,028	Sk-BE	IM-1202
Beck Sand & Gravel, Inc. 2820 Webb Rd. Ravenna, OH 44266 330-626-3863 Robert E. Wenrich, pres.	Beck Sand & Gravel, Inc. (256)	Portage	sand & gravel	239,250	239,250	Pe-50	IM-96

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Paul D. Beery Trucking Co. 4770 Cincinnati-Zanesville Rd. NE Lancaster, OH 43130 614-653-5061 Paul D. Beery, pres.	Paul D. Beery Trucking Co. (401)	Fairfield	sand & gravel	7,512	260	Fd-14	IM-933
Belden Brick Co. P.O. Box 20910 Canton, OH 44701 330-852-2424 William H. Belden, Jr., pres.	Moomaw Pit (187)	Tuscarawas	limestone	5,609	5,609	Ts-1517	IM-46
	(62)		sandstone				
	(56)		clay	49,737	49,737		
	(56)		shale	51,926	51,926		
	Belden Pit (57)	Tuscarawas	clay	32,717	32,717	Ts-1646	IM-44
	(57)		shale	28,319	28,319		
	Wallick Pit (71)	Tuscarawas	sandstone			Ts-1841	IM-45
	(58)		clay	118,474	118,474		
	(58)		shale	23,095	23,095		
	Shanesville Pit (59)	Tuscarawas	clay	30,550	30,550	Ts-1939	IM-47
	(59)		shale	65,911	65,911		
	Beagle Pit (60)	Tuscarawas	clay			Ts-1960	IM-48
	Plotner Pit (181)	Tuscarawas	limestone			Ts-B	IM-49
	(147)		clay				
	(147)		shale				
	Belden Brick Co. (191)	Tuscarawas	limestone			Ts-BB	IM-1221
	(177)		clay				
	(177)		shale				
Belville Mining Co., Inc. P.O. Box 834 Ironton, OH 45638 614-643-2331 Thmoas J. Belville, pres.	Brady Creek (159)	Lawrence	limestone	42,955	42,955	Le-B	IM-1188, D-0746
	(93)		clay				
Best Sand Corp. 11830 Ravenna Rd. Chardon, OH 44024 216-946-3441 Charles Fowler, pres.	Best Sand Corp. (17)	Geauga	sandstone	742,873	913,456	Gea-3	IM-89
	Schrader Quarry (45)	Pike	sandstone	119,072	175,000	Pke-31	IM-835
	Southern Quarry (34)	Ross	sandstone			Rs-16	IM-172
Beverly Slag Co. P.O. Box 599 McConnelsville, OH 43756 614-962-5621 Carl L. Price, v. pres.	Devola Pit (364)	Washington	sand & gravel	953	953	Wn-55	IM-669
Big T Mining P.O. Box 121 Haverhill, OH 45636 614-532-3951 Brian Hughes, owner	Big T Pit (663)	Scioto	sand & gravel	5,183	5,183	So-BT	IM-1286
Big Walnut Sand & Gravel, Inc. 2112 Eakin Rd. Columbus, OH 43223 614-275-2004 James Hughes, pres.	Big Walnut Sand & Gravel, Inc. (97)	Franklin	sand & gravel	63,395	63,395	Fn-14	IM-832
Black Top Contracting, Inc. P.O. Box 98 Belpre, OH 45714 614-753-1181 Terry R. Wyatt, pres.	Black Top #1 (19)	Athens	sand & gravel	8,506	0	As-588	IM-630
E. E. Blair Construction Co. P.O. Box 309 Wheelersburg, OH 45694-0309 614-574-6575 Edwin E. Blair, pres.	Blair Pit (303)	Scioto	sand & gravel	181,411	181,411	So-98	IM-474
Blue Jay Enterprises of Ts. Co., Inc. P.O. Box 641 Zoar, OH 44697 330-874-2048 Leland D. Ervin, pres.	Swonger-Waltz Mine (85)	Tuscarawas	clay	29,339	29,339	Ts-520	IM-214
	(85)		shale	10,795	10,795		
	Blue Jay Pit (200)	Tuscarawas	limestone			Ts-BJ	IM-1285
	(201)		clay				
	(201)		shale				
Blue Stone Sand & Gravel, Inc. 14376 N. Cheshire St. P.O. Box 567 Burton, OH 44021 216-834-1988 David Ronyak, pres.	Blue Stone Pit #1 (660)	Portage	sand & gravel			Pe-B	IM-1296

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Bluffton Stone Co. P.O. Box 26 Bluffton, OH 45817-0026 419-358-6941 Brent Gerkin, pres.	Bluffton Stone Co. (3)	Allen	limestone	410,097	414,994	An-1	IM-485
Blum Mining Co. P.O. Box 232 Carrollton, OH 44615 330-627-2670 Raymond Blum, pres.	Blum Mining Co. (476) (161)	Mahoning	sand & gravel limestone	27,136	27,136	Mg-629	IM-1008
Bolin & Bartley, Inc. 1217 County Rd. 1475 R.D. 1 Ashland, OH 44805 419-289-1507 Hershel D. Bartley, pres.	Simington Rd. (509) Bolin & Bartley Sand & Gravel (409)	Ashland Richland	sand & gravel sand & gravel	255 97,000	255 97,000	Ald-16 Rd-20	IM-1120 IM-617
Bowerston Shale Co. 515 Main St. Bowerston, OH 44695 614-269-2921 William U. Milliken, pres.	Bowerston (11) Scott Farm (109)	Harrison Harrison	shale shale	31,061	31,061	Hn-152 Hn-B	IM-42 IM-1020
Bowerston Shale Co. 1329 Seven Hills Rd. NE Newark, OH 43055 614-763-3921 William U. Milliken, pres.	Hanover (31) Frazeysburg (38) (38)	Licking Muskingum	shale clay shale	20,267 7,759	20,267 7,759	Lg-501 Mum-776	IM-257 IM-256
Gaston Bowling, Inc. P.O. Box 330 Oxford, OH 45056 513-523-8805 Gaston Bowling, pres.	Indian Creek Sand & Gravel Co. (37)	Butler	sand & gravel	2,216	2,216	Br-40	IM-493
D. H. Bowman & Sons, Inc. 1201 Mill St. Bellville, OH 44813-1227 419-886-2711 Richard D. Bowman, pres.	D. H. Bowman & Sons, Inc. (287)	Richland	sand & gravel	39,340	60,908	Rd-4	IM-279, IM-1255
Boyas Excavating, Inc. 10055 Sweet Valley Dr. Cleveland, OH 44125-4247 216-447-0175 Pete Boyas, pres.	Boyas' Valley View Quarry (595) (13)	Cuyahoga	sand & gravel sandstone	8,100	8,100	Cya-42	IM-686
Boyd Gravel Co. 24270 Twp. Rd. 1202 Coshocton, OH 43812 614-622-6315 Robert Mill, pres.	Boyd Gravel Co. (71)	Coshocton	sand & gravel	285,355	285,355	Cn-694	IM-293
Boyd Gravel Co. 1985 Gene Cox Memorial Dr. Dresden, OH 43821 614-754-3311 Jeff Jack, supt.	Dresden Plant #1 (244) Prospect (243) Gilbert Cox (449)	Muskingum Muskingum Muskingum	sand & gravel sand & gravel sand & gravel	437,297	437,297	Mum-799 Mum-863 Mum-899	IM-317 IM-264
Briar Hill Stone Co. P.O. Box 457 Glenmont, OH 44628 330-377-5100 F. L. Waller, pres.	Quarry #26 (4) Quarry #3 (5) Quarry #32 (6) Quarry #24 (7) Quarry #18 (8) Quarry #54 (46) Quarry #55 (44) Quarry #31 (19) Quarry #6 (23)	Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Coshocton Holmes Knox	sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone sandstone	926 5,179 1,773 2,244 562 10,457	926 5,179 1,773 2,244 562 10,457	Cn-13 Cn-659 Cn-686 Cn-692 Cn-695 Cn-809 Cn-815 Hs-49 Kx-12	IM-397 IM-232 IM-504 IM-294 IM-402 IM-909 IM-939 IM-418 IM-445
Briggs Sand & Gravel, Inc. Rte. 4 Box 303 County Rd. 10 Marietta, OH 45750 614-373-3363 James F. Briggs, pres.	Briggs Sand & Gravel, Inc. (365)	Washington	sand & gravel	33,792	33,792	Wn-508	IM-57
Brimfield Sand & Gravel 3613 Mogadore Rd. Kent, OH 44240-7431 330-673-2823 Albert Roth, pres.	Brimfield Sand & Gravel (605)	Portage	sand & gravel			Pe-102	IM-1184

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Broadway Sand & Gravel, Inc. 2000 Sandridge Dr. Dayton, OH 45439 937-299-1166 George D. Jones, v. pres.	Broadway Sand & Gravel, Inc. (225)	Montgomery	sand & gravel	98,437	98,437	My-65	IM-594
Broshear Contractors, Inc. 2520 Millville-Ross Rd. Hamilton, OH 45013 513-863-3388 Gerald Broshear, pres.	Ross Township Gravel (31)	Butler	sand & gravel	29,588	29,588	Br-48	IM-562
Browning Ferris Industries of Ohio, Inc. 530 N. Camp Rd. Port Clinton, OH 43452 419-635-2367 Dave Vossmer, dist. mgr.	Ottawa County Landfill (198)	Ottawa	clay	175,600	175,600	Oa-BF	IM-1287
Karl Brugmann Sand & Gravel, Inc. 8420 Weaver Rd. Ravenna, OH 44266 330-626-3914 Donald H. Brugmann, owner	Karl Bruggman Sand & Gravel, Inc. (257)	Portage	sand & gravel	59,631	59,631	Pe-15	IM-104
Oscar Brugmann Sand & Gravel, Inc. 3828 Dudley Rd. Mantua, OH 44255 330-274-8224 Roy Brugmann, pres.	Oscar Brugmann Sand & Gravel, Inc. (258)	Portage	sand & gravel	522,054	575,000	Pe-9	IM-119
	(70)		sandstone	37,606	45,000		
	Oscar Brugmann Sand & Gravel, Inc. (628)	Portage	sand & gravel	1,500	1,500	Pe-OB	IM-1241
Brush Wellman, Inc. 14710 W. Portage River South Rd. Elmore, OH 43416-9502 419-862-2745 John Cayton, engineer	Brush Wellman Clay Mine (136)	Ottawa	clay	30,000	30,000	Oa-19	IM-1153
Buckeye Excavating Development, Inc. 10718 Old Lincoln Way Orrville, OH 44667 330-857-7665 Steven R. Steiner, partner	Steiner Pit (535)	Wayne	sand & gravel	20,473	20,473	We-23	IM-1136
Buckeye Industrial Mining Co. P.O. Box 389 Lisbon, OH 44460 330-337-9511 John C. Grisham, pres.	Myers (167)	Carroll	clay			Cl-238	D-0703
	West Point (178)	Columbiana	shale			Ca-987	D-0928
	West Point (192)	Columbiana	limestone			Ca-BIM	IM-1271
	(186)		clay	1,309	1,309		
	Cable Job (146)	Stark	clay			Sk-247	D-0929
	(146)		shale				
	Close (200)	Stark	clay	12,736	12,736	Sk-B	D-1123
	(200)		shale	80	80		
	Robertsville (189)	Stark	clay	70	70	Sk-BI	D-1043
			shale	4,013	4,013		
James Bunnell, Inc. 5730 State Rte. 128 Cleves, OH 45002 513-353-1100 Jack Ernst, pres.	James Bunnell, Inc. (123)	Hamilton	sand & gravel	4,269	4,269	Hmn-50	IM-205
	James Bunnell, Inc. (124)	Hamilton	sand & gravel	694,143	694,143	Hmn-59	IM-812, IM-815
	James Bunnell, Inc. (519)	Hamilton	sand & gravel	253	253	Hmn-B	IM-1139
Burlington Sand & Gravel Co. P.O. Box 399 Chesapeake, OH 45619 614-894-5978 Vernon E. Collier, owner	Willow Creek (170)	Lawrence	sand & gravel			Le-426	IM-856
Burrgett Industries, Inc. P.O. Box 651 Newcomerstown, OH 43832 614-498-8754 Thomas J. Miller, pres.	Burrgett Pit (532)	Tuscarawas	sand & gravel			Ts-2029	IM-1129
C.I.R., Inc. 2856 N. County Line Rd. Geneva, OH 44041-9604 216-352-2256 Louis W. Pirc, pres.	Harmon (625)	Lake	sand & gravel	6,943	6,943	Lke-CIR	IM-1243

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
C & S Contractors, Inc. P.O. Box 42459 Cincinnati, OH 45242 513-530-9844 Raymond A. Conn, pres.	C & S Contractors, Inc. (356)	Warren	sand & gravel			Wan-47	IM-846
Canton Aggregate Div. of Central Allied Enterprises, Inc. P.O. Box 80449 Canton, OH 44708-0449 330-477-6751 John A. Woodhall, Jr., pres.	Massillon Pit (325) Canton Aggregate (318) Canton Aggregate (319) Canton Aggregate (631) Massillon Pit (578)	Stark Stark Stark Stark Stark	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	167,275 363,000 325,000	167,275 363,000 325,000	Sk-607 Sk-681 Sk-689 Sk-CA Sk-MW	IM-102 IM-164 IM-173 IM-1234 IM-1171
Joe E. Carter 21399 State Line Rd. Lawrenceburg, IN 47025 812-537-3970 Joe E. Carter, owner	Lost Bridge (642)	Hamilton	sand & gravel	200	200	Hmn-JC	IM-1267
Carter & Carter, Inc. P.O. Box 266 Miamisburg, OH 45343-0266 937-239-0554 Charles V. Carter, pres.	Carter & Carter, Inc. (561) (157)	Montgomery	sand & gravel clay	802	0	My-CW	IM-878
Cashen, Inc. 1225 Dock Rd. Madison, OH 44057 216-428-1148 Andy Cashen, owner	Cashen Pit (597)	Lake	sand & gravel			Lke-C	IM-1215
Cedar Heights Clay Co. Division of Resco Products, Inc. P.O. Box 295 Oak Hill, OH 45656-0295 614-682-7794 William T. Tredennick, pres.	Katie Walke (91) Sadler (145) (145) Harrison (195)	Jackson Jackson Jackson	clay clay shale clay	27,666 704 29,347	27,666 704 29,347	Jkn-CH Jkn-CH1 Jkn-CH2	IM-1060 IM-1182 IM-1302
Celotex Corp. P.O. Box 280 Port Clinton, OH 43452 419-734-3153 Larry Schultz, plant mgr.	American #2 (1)	Ottawa	gypsum	267,692	267,692	Oa-2	IM-344
Center West Enterprise, Inc. 1544 N. Main St. Niles, OH 44446 330-544-0890 Andrew B. Polivka, pres.	Center West Enterprise, Inc. (611)	Trumbull	sand & gravel			Tl-C	IM-1190
Central Ohio Coal Co. P.O. Box 98 Cumberland, OH 43732-0098 614-962-2013 Gary Dimmerling, gen. mgr.	Horse Run Stone Quarry (73) Windy Hill (166)	Morgan Muskingum, Noble	limestone limestone	82,621	82,621	Mon-600 Ne-C	D-1034 D-0820
Chambers Development of Ohio, Inc. 310 Leger Rd. N. Huntingdon, PA 15642 412-861-8730 Alexander Rangos, v. pres.	Harrison County Landfill (188) (188)	Harrison	clay shale			Hn-CD	D-1105
Charlestown Sand & Gravel, Inc. 7845 State Rte. 5 Ravenna, OH 44266 216-296-9233 Yale Stuble, pres.	Charlestown Sand & Gravel, Inc. (259)	Portage	sand & gravel			Pe-17	IM-123
Chesterhill Stone Co. 773 East State Rte. 60 NE P.O. Box 599 McConnelsville, OH 43756 614-962-5621 Carl Price, v. pres.	Buck Farm (240) Graham Farm (563) East Fultonham (75)	Morgan Morgan Muskingum	sand & gravel sand & gravel limestone	247,832 674,699	246,451 728,935	Mon-588 Mon-CSC Mum-106	IM-35 IM-1178 IM-297
Chesterville Sand & Gravel Co., Inc. State Rte. 95 E P.O. Box 51 Chesterville, OH 43317 419-768-3369 Carrol D. Gleason, pres.	Chesterville Sand & Gravel Co., Inc. (242)	Morrow	sand & gravel	157,282	157,282	Mw-10	IM-258

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Chillicothe Sand & Gravel Co. 1177 Hopetown Rd. Chillicothe, OH 45601 614-775-3751 Fred Houser, plant foreman	Chillicothe Sand & Gravel Co. (490)	Ross	sand & gravel	133,625	275,000	Rs-27	IM-1098
Christman Quarry 47278 Swazey Rd. Lewisville, OH 43754 614-838-2475 Gerald L. Christman, owner	Christman Quarry (163)	Monroe	limestone	93,806	93,806	Me-C	IM-1088
Clark Clay Co. 6918 Township Rd. 310 Millersburg, OH 44654 330-674-5150 Dwight S. Clark, owner	Clark Clay Co. (17)	Holmes	clay	3,836	3,836	Hs-56	
Clemson Excavating, Inc. 9954 Old State Rd. Chardon, OH 44024 216-286-3153 Bill Clemson, pres.	Clemson Excavating, Inc. (635)	Ashtabula	sand & gravel	11,154	11,154	Asa-C	IM-1278
Cleveland Quarries P.O. Box 261 Amherst, OH 44001-0261 216-986-4501 David Tyrrell, pres.	Birmingham Quarry (14) Amherst Quarries (27)	Erie Lorain	sandstone sandstone	2,570 4,196	2,570 4,196	Ee-21 Ln-3	IM-416 IM-415
Clinton Stone, Inc. P.O. Box 650 Hamden, OH 45634-0650 614-384-4211 Bonny A. Huffman, pres.	Sands Hill (124)	Vinton	limestone			Vn-174	D-0309
M. J. Coates Construction Co. P.O. Box 231 Centerville, OH 45459 937-862-4655 Martin J. Coates, owner	M. J. Coates Construction Co. (548)	Greene	sand & gravel	142,450	142,450	Ge-47	IM-751
Cochran Transportation Services, Inc. P.O. Box 578 Athens, OH 45701 614-593-3906 Charles W. Cochran, pres.	Cochran Transportation Services, Inc. (458) (87)	Athens	sand & gravel clay	27,119 3,539	27,119 3,539	As-595	IM-1083
Boone Coleman Construction, Inc. Route 5, Box 292 West Portsmouth, OH 45662 614-858-6661 Boone Coleman, pres.	Coleman Pit (576) Boone Coleman Construction, Inc. (73)	Scioto Scioto	sand & gravel sandstone	0	6,175	So-B So-BC	IM-705 IM-1252
Bill D. Colwell 5019 College Corner Pike P.O. Box 300 Oxford, OH 45056 513-523-3128 Bill D. Colwell, owner	Sipps Lane (28)	Butler	sand & gravel	29,900	29,900	Br-36	IM-649
Complete Resources Co. 1275 E. Fifth Ave. Columbus, OH 43219 614-253-6415 Toby McGee, partner	Darby Materials Plant #5 (648)	Pickaway	sand & gravel	207,746	223,591	Fn-C	IM-1265
Con-Ag, Inc. 16672 County Rd. 66A N St. Marys, OH 45885 419-394-8870 Robert E. Hirschfeld, pres.	Con-Ag, Inc. (10)	Auglaize	limestone	191,323	250,740	Ae-31	IM-744
Copley Shores Development 530 Delaware Ave. Akron, OH 44303 330-836-1576 Janet Zazo, owner	Copley Shores Development (649)	Summit	sand & gravel			St-C	IM-1251

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Craigton Shale Co. 2880 E. Easton Rd. Creston, OH 44217 330-435-6535 Leonard D. Schemrich, owner	Craigton Shale Co. (165)	Wayne	shale	9,888	9,888	We-25	IM-1209
Cremeans Concrete & Supply Georges Creek Rd. P.O. Box 475 Gallipolis, OH 45631 614-446-1142 Frank A. Cremeans, pres.	Cremeans Concrete & Supply (440)	Gallia	sand & gravel	3,079	3,079	Ga-626	IM-1046
Crosby Gravel 9570 State Rte. 128 Harrison, OH 45030 513-738-0077 Joseph Prus, pres.	Crosby Gravel (121)	Hamilton	sand & gravel	450	450	Hmn-44	IM-120
R. A. Cruise Sand & Gravel, Inc. 7639 State Rte. 14 Ravenna, OH 44266 330-296-4087 Larry R. Cruise, pres.	R. A. Cruise Sand & Gravel, Inc. (261)	Portage	sand & gravel	67,918	67,918	Pe-45	IM-139
Cunningham Asphalt Paving, Inc. P.O. Box 370 Wheelersburg, OH 45694 614-574-6184 Karl Cunningham, pres.	Cunningham Pit (304)	Scioto	sand & gravel			So-83	IM-211
Custar Stone Co. P.O. Box 629 Napoleon, OH 43545 419-533-8831 Brent Gerkin, pres.	Custar (129)	Wood	limestone	502,040	449,389	Wd-5	IM-473
D. & D. Mining Co. 3379 E. Garfield Rd. New Springfield, OH 44443 330-549-3127 Donald Thompson, pres.	D. & D. Strip (57) (164) D. & D. Strip (130)	Columbiana Columbiana	sandstone shale clay	500 31,591	500 31,591	Ca-888 Ca-348	IM-1181 IM-976
D & K Materials, Inc. 3141 Congress Lake Rd. Mogadore, OH 44260 330-678-2411 Kimberly Ebie, pres.	D & K Materials, Inc. (568) (199)	Portage	sand & gravel clay	21,355 47	21,355 47	Pe-101	IM-1154
D & W Sand & Gravel 10677 Wren Rd. Mechanicsburg, OH 43044 937-834-2548 Dale Potter, owner	D & W Sand & Gravel (49)	Champaign	sand & gravel			Cpn-21	IM-616
D.G.M., Inc. 453 Salisbury Rd. Beaver, OH 45613 614-820-3145 Thomas Salisbury, pres.	Tow Path Ready Mix (664)	Scioto	sand & gravel	8,000	1,000	So-DGM	IM-1280
Davis Sand & Gravel 311 Mt. Zion Rd. Lancaster, OH 43130 614-687-1876 Richard P. Davis, owner	Davis Sand & Gravel (91)	Fairfield	sand & gravel	750	750	Fd-12	IM-451
Davon, Inc. 4281 Roush Rd. Hillsboro, OH 45133 937-364-2311 John B. Patton, pres.	Plum Run (1) Eagle Crushed Stone (184) Highland Stone (41) Chattin Pit (253)	Adams Brown Highland Pike	limestone limestone limestone sand & gravel	2,118,089 200,800 860,337	2,027,385 209,573 907,121	Ads-1 Bn-EC Hd-2 Pke-23	IM-237 IM-1195 IM-230 IM-242
DeMilta Sand & Gravel, Inc. 921 Erie Rd. Eastlake, OH 44094 216-942-2015 Nick DeMilta, pres.	DeMilta Sand & Gravel, Inc. (598)	Lake	sand & gravel			Lke-D	IM-1187

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Demmy Construction, Inc. 4324 Fairfield Pike Springfield, OH 45502 937-325-9429 Daniel E. Demmy, pres.	Pit II (385)	Clark	sand & gravel	42,449	42,449	Ck-501	IM-340
Demmy Sand & Gravel 4324 Fairfield Pike Springfield, OH 45502 937-325-8840 Woodrow Demmy, owner	Demmy Sand & Gravel (54)	Clark	sand & gravel	7,158	7,158	Ck-502	IM-375
Dennis Clay Co. 11123 State Rte. 37 East New Lexington, OH 43764 614-342-5473 Tom L. Dennis, owner	Ohio Power (124)	Muskingum	clay	1,538	1,538	Mum-903	IM-1115
	(124)		shale	2,032	2,032		
	Baker (176)	Muskingum	clay			Mum-DCC	IM-1220
	(176)		shale	8,906	8,906		
	Dennis Clay Co. (108)	Perry	clay	11,931	11,931	Py-338	IM-1092
	(108)		shale	15,582	15,582		
	Snake Hollow (67)	Perry	sandstone			Py-DCC	IM-1192
	(159)		clay				
A. J. Diana Sons, Inc. 1916 Erie Ave. NW P.O. Box 488 Massillon, OH 44648 330-832-5904 Virgil V. Diana, pres.	Neidert Pit (320)	Stark	sand & gravel			Sk-694	IM-858
Dingledine Basic Materials, Inc. 2304 Somerville Rd. P.O. Box 86 Somerville, OH 45064 513-726-5258 Gerald Dingledine, owner	Dingledine Basic Materials, Inc. (32)	Butler	sand & gravel	35,846	35,846	Br-50	IM-739
Dome Minerals, Inc. 15601 Emerick Rd. Kensington, OH 44427 330-223-1413 Fred A. Rogers, pres.	Dome Minerals, Inc. (79)	Columbiana	shale	24,587	24,587	Ca-947	IM-935
Don's Dozer Service, Inc. 8200 Seasons Rd. Streetsboro, OH 44241 216-626-5147 Donald R. McElravy, pres.	Don's Dozer Service, Inc. (529)	Portage	sand & gravel	416	416	Pe-96	IM-792
James E. Downard 1885 Mt. Zwingli Rd. Bremen, OH 43107 614-569-7849 James E. Downard, owner	Downard Pit (541)	Fairfield	sand & gravel	2,000	2,000	Fd-16	IM-1156
	(155)		clay	865	865		
Dravo Basic Materials Co., Inc. 3600 One Oliver Plaza Pittsburgh, PA 15222-2682 412-566-3000 Carl A. Gilbert, pres.	Newtown (128)	Hamilton	sand & gravel			Hmn-11	IM-133
	Newtown (128)	Hamilton	sand & gravel			Hmn-70	IM-133
Dravo Lime Co. 3600 One Oliver Plaza Pittsburgh, PA 15222-2682 412-566-5500 Carl A. Gilbert, pres.	Jones Pit (537)	Clermont	sand & gravel			Ct-11	IM-665
C. E. Duff & Son, Inc. 9042 State Route 117 P.O. Box 305 Huntsville, OH 43324 937-686-2488 James E. Duff, pres.	Forest Quarry (156)	Hardin	limestone	19,761	19,761	Hdn-S	IM-1034
	Portable (444)	Logan	sand & gravel	1,470	1,470	Lgn-12	IM-1071
	C.E. Duff & Son, Inc. (50)	Logan	limestone	329,095	329,095	Lgn-15	IM-453
	Duff Sand Co. (182)	Logan	sand & gravel	57,239	57,239	Lgn-31	IM-454
	Bellefontaine (420)	Logan	sand & gravel	29,416	29,416	Lgn-36	IM-1007
	Lewistown (183)	Logan	sand & gravel			Lgn-39	IM-887
E. A. Construction, Inc. 7013 S. Funk Rd. Shreve, OH 44676 330-496-2531 Ellis Aylsworth, pres.	#1 (613)	Wayne	sand & gravel	693	693	We-24	IM-1211
	#1 (74)	Wayne	sandstone	23,533	23,533	We-EA	IM-1259
	(185)		clay	5,164	5,164		
E.M.A.I. Corp. dba ESSROC Materials, Inc. P.O. Box 5250 Poland, OH 44514 330-536-6275 Philippe Milliet, CEO	Bessemer Pit (57)	Mahoning	limestone	166,668	166,668	Mg-608	IM-4
	(34)		shale	112	112		
	Carbon Pit (162)	Mahoning	limestone	1,810,414	1,810,414	Mg-EM	IM-1056
	(107)		clay				
	(107)		shale	116,995	116,995		

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
East Fairfield Coal Co. 10900 South Ave. P.O. Box 217 North Lima, OH 44452-0217 330-549-2165 W. Thomas Mackall, pres.	Withers-Petersburg (602) (171) (53) (118)	Mahoning	sand & gravel limestone sandstone clay	82,707	82,707	Mg-631	IM-1103
Easton Resources, Inc. 1373 Route 322 E Orwell, OH 44076 216-422-3500 Milven W. Easton, pres.	Brockway (592)	Ashtabula	sand & gravel	1,125	1,125	Asa-22	IM-1214
Eaton Sand & Gravel Co. 11641 Mosteller Rd. Cincinnati, OH 45241 513-771-0820 Charles Bucklew, pres.	Cleves Gravel Pit (132)	Hamilton	sand & gravel			Hmn-46	IM-396
R. A. Eberts Co., Inc. P.O. Box 109 Jackson, OH 45640 614-286-2975 Phil A. Bowman, pres.	Diamond Stone (9) (128)	Athens	limestone clay	273,681 4,112	273,681 4,112	As-533	IM-17
David E. Edgington P.O. Box 282 Frankfort, OH 45628 614-998-5328 David E. Edgington, owner	Edgington Pit (573)	Ross	sand & gravel	3,968	3,968	Rs-E	IM-1168
Elm Spring Farm 938 State Rte. 207 Chillicothe, OH 45601 614-775-5525 Joanna J. Haskins, owner	Elm Spring Farm (297)	Ross	sand & gravel			Rs-26	IM-922
Embro, Inc. 8320 N. State Rte. 123 Franklin, OH 45005 513-746-6121 Ronald Martz, pres.	Embro, Inc. (589)	Warren	sand & gravel			Wan-7	IM-151
Enon Washed Sand & Gravel Co. 1665 Enon-Donnelsville Rd. P.O. Box 363 Enon, OH 45323 937-878-8631 John Steele, Jr., pres.	Enon Washed Sand & Gravel Co. (57)	Clark	sand & gravel	236,018	228,679	Ck-3	IM-463
Erie Blacktop, Inc. P.O. Box 2308 Sandusky, OH 44870 419-625-7374 Dean Wikel, pres.	Erie Blacktop Quarry (24) (637) Erie Blacktop Sand & Gravel Pit (417)	Erie Huron	limestone sand & gravel sand & gravel	58,375 600	58,375 600	Ee-27 Hrn-16	IM-608 IM-975
Erie Materials, Inc. 4507 Tiffin Ave. Sandusky, OH 44870 419-625-7374 Dean Wikel, pres.	Erie Materials, Inc. (83)	Erie	sand & gravel	576	576	Ee-18	IM-676
Erie Sand & Gravel Co. P.O. Box 179 Erie, PA 16512-0179 814-453-6721 Sidney E. Smith, Jr., pres.	Erie Dredge (1)	Lake Erie	sand & gravel (dredged)	21,168	21,168	Ee-D	
Craig Fankhauser 13 Knollwood Perrysburg, OH 43551 419-535-5931 Craig Fankhauser, owner	Fankhauser Pit (557)	Lucas	sand & gravel	3,750	3,750	Ls-F	IM-1160
Feikert Sand & Gravel, Inc. 6971 County Rd. 189 Millersburg, OH 44654-9186 330-674-0038 Lynn O. Feikert, pres.	Feikert Sand & Gravel, Inc. (154) Feikert Sand & Gravel, Inc. (624)	Holmes Holmes	sand & gravel sand & gravel	129,335	129,335	Hs-511 Hs-F[3]	IM-1048 IM-1240

[3]Information for Hs-F is reported under Hs-511.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Fenner Sand & Gravel, Inc. 7131 W. Fenner Rd. Ludlow Falls, OH 45339 937-698-7048 Robert P. Snead, pres.	Woodville Concrete Corp. (222)	Miami	sand & gravel	104,000	104,000	Mi-4	IM-472
Fleckenstein Farm Gravel Pit 11251 State Rte. 66 Minster, OH 45865 937-295-2417 Ferd J. Fleckenstein, owner	Fleckenstein Farm Gravel Pit (310)	Shelby	sand & gravel			Shy-12	IM-528
Fleming Construction Co., Inc. P.O. Box 31 Marion, OH 43301-0031 614-494-2177 Gerald E. Fleming, pres.	Fleming Construction Co., Inc. (423)	Marion	sand & gravel	9,199	9,199	Mn-19	IM-990
Flesher Sand & Gravel, Inc. 3322 Clark Mill Rd. Norton, OH 44203 330-745-9239 James E. Flesher, pres.	Flesher Sand & Gravel, Inc. (327)	Summit	sand & gravel	23,722	23,722	St-52	IM-900
David L. Florence 1617 Staunton Ave. Parkersburg, WV 26101 614-374-0272 Joan D. Florence, owner	Florence Pit (163)	Washington	clay			Wn-F	IM-1208
Foureman's Sand & Gravel, Inc. 2791 Wildcat Rd. Greenville, OH 45331 937-548-1718 Gary B. Foureman, pres.	Foureman's Sand & Gravel, Inc. (80)	Darke	sand & gravel	75,957	75,957	Dke-4	IM-433
Fox Stone Products, Inc. P.O. Box 299 Put-in-Bay, OH 43456 419-285-3025 Richard H. Fox, owner	Fox Stone Products, Inc. (180)	Ottawa	limestone	6,000	6,000	Oa-18	IM-635
The France Stone Co. 8130 Brint Rd. P.O. Box 278 Sylvania, OH 43560-0278 419-882-0123 Brian J. Wheeler, pres.	Waterville (52) Sylvania (53) Paulding (86) Flat Rock (107) Bloomville (108)	Lucas Lucas Paulding Seneca Seneca	limestone limestone limestone limestone limestone	465,709 704,900 237,385 1,341,552 390,076	475,834 697,539 296,278 1,477,553 375,213	Ls-1 Ls-3 Pg-7 Sa-1 Sa-3	IM-575 IM-580 IM-347 IM-349
Friendsville Sand, L.P. 9601 Avon Lake Rd. Lodi, OH 44254 216-948-2610 Richard L. Rothel, pres.	Friendsville Sand, L.P. (558)	Medina	sand & gravel	35,000	35,000	Ma-23	IM-1177
Lloyd Fry P.O. Box 1515 Piqua, OH 45356 937-773-1541 Lloyd Fry, pres.	Lloyd Fry (390)	Miami	sand & gravel			Mi-T	IM-696
Frye Sand & Gravel, Inc. 3049 S. Denmark Rd. P.O. Box 3 Dorset, OH 44032 216-858-2627 Harold L. Frye, owner	Frye Sand & Gravel, Inc. (9) Frye Sand & Gravel, Inc. (650)	Ashtabula Ashtabula	sand & gravel sand & gravel	2,172	2,172	Asa-10 Asa-F	IM-198 IM-1289
Ganges Gravel Co. P.O. Box 638 Mansfield, OH 44901 419-525-2656 Don Daugherty, owner	Ganges Gravel Co. (289)	Richland	sand & gravel			Rd-18	IM-670
John L. Garber Materials, Inc. Rte. 8 Lexington, OH 44904 419-884-1567 John L. Garber, pres.	John L. Garber Materials, Inc. (290)	Richland	sand & gravel	273,667	276,000	Rd-14	IM-436

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Al Gasser Excavating, Inc. 1308 Gasser Rd. NW Dover, OH 44622 330-343-9407 Allen L. Gasser, pres.	Gasser Pit (587)	Tuscarawas	sand & gravel	1,875	1,875	Ts-2049	IM-1151
Geiger Sand & Gravel 173 James Rd. Gahanna, OH 43230 614-337-9906 Steve Geiger, owner	Alexandria Pit (600)	Licking	sand & gravel	49,110	49,110	Lg-W	IM-1213
General Clay Products Corp. P.O. Box 236 Baltic, OH 43804-0236 330-897-7171 Terry Jones, mine foreman	Drescher Pit (6) (6) Troyer Pit (18)	Coshocton Holmes	clay shale shale	2,100	2,100	Cn-787 Hs-77	IM-610 IM-545
General Clay Products Corp. P.O. Box 550 Logan, OH 43138 614-385-5616 Harold B. Epler, Jr., pres.	General Clay Products Corp. (12) (12) General Clay Products Corp. (110)	Hocking Hocking	clay shale shale			Hg-205 Hg-330	IM-21 IM-1013
General Clay Products Corp. P.O. Box 340 Wadsworth, OH 44281 330-335-1515 Stephen Markovich, gen. mgr.	General Clay Products Corp. (37)	Medina	shale	4,665	4,665	Ma-6	IM-455
General Clay Products Corp. 1445 Goodale Blvd. Columbus, OH 43212 330-335-1515 Stephen Markovich, gen. mgr.	Plant #7 (73)	Wyandot	clay			Wt-7	IM-407
GenLime Group, L.P. P.O. Box 158 Genoa, OH 43430 419-855-8336 P. J. Senechal, pres.	GenLime Group, L.P. (85)	Ottawa	limestone	987,100	360,097	Oa-1	IM-292
Gerken Materials, Inc. P.O. Box 607 Napoleon, OH 43545 419-533-2421 Julian A. Gerken, pres.	Gerken Materials, Inc. (614)	Williams	sand & gravel			Ws-20	IM-1262
Gibson Sand & Gravel Co. 1385 Knorr Rd. Galion, OH 44833 419-468-5527 Arthur T. Gibson, owner	Gibson Sand & Gravel Co. (75)	Crawford	sand & gravel	312	312	Cd-3	IM-693
Glen-Gery Corp. P.O Box 398 Caledonia, OH 43314 419-845-3321 Evan Davis, plant supt.	Iberia Quarry (36)	Marion	shale	190,287	190,287	Mn-7	IM-309
Golden Crescent Construction, Inc. 1104 Milan Ave. Amherst, OH 44001 216-967-6822 Samuel T. Bartlett, pres.	Golden Crescent Construction, Inc. (66)	Lorain	sandstone			Ln-14	IM-1205
Golsch Construction, Inc. 9880 Valley Junction Rd. Cleves, OH 45002 513-353-2555 Gary Golsch, pres.	Golsch Pit (641)	Hamilton	sand & gravel			Hmn-G	IM-1270
Joyce A. Good 1203 Kieffer St. Wooster, OH 44691 330-264-6803 Joyce A. Good, owner	Good Pit (508)	Ashland	sand & gravel	6,671	0	Ald-G	IM-1121
Good Builders 35280 Linton Rd. Logan, OH 43138 614-385-5872 Steve Good, owner	Good Builders (596) (171)	Hocking	sand & gravel clay			Hg-G	IM-1201

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Goodwin Sand & Gravel, Inc. 126 S. Norton St. Mt. Vernon, OH 43050 614-392-7971 Thomas J. Mill, plant mgr.	Goodwin Sand & Gravel, Inc. (160)	Knox	sand & gravel			Kx-7	IM-235
Goshen Sand & Gravel 1012 Commercial Ave. SE New Philadelphia, OH 44663 330-339-3339 Ben Cookson, pres.	Goshen Sand & Gravel (389)	Tuscarawas	sand & gravel	88,755	93,455	Ts-1976	IM-942, IM-1235
Gottron Bros. Co. 100 South Stone St. Fremont, OH 43420 419-332-5281 Harry P. Gottron, Jr., v. pres.	Gottron Bros. Co. (101)	Sandusky	limestone	107,660	73,800	Sy-5	IM-259
James D. Graham 2036 State Route 725 Spring Valley, OH 45370 937-862-4655 James D. Graham, owner	Graham Pit (550)	Greene	sand & gravel	842	842	Ge-G	IM-655
The Gravel Co. 325 Clark Rd. P.O. Box 15501 Cincinnati, OH 45215 513-761-4980 Roy B. Schweitzer, pres.	New Miami Pit (42) Cleves (141)	Butler Hamilton	sand & gravel sand & gravel	31,000	31,000	Br-3 Hmn-28	IM-719 IM-353
Green Basin Coal, Inc. 8758 Fort Laurens Rd. NW Strasburg, OH 44680 330-878-7740 Tim Williams, pres.	Blackhawk (169) (63) (103) (103)	Tuscarawas	limestone sandstone clay shale			Ts-2024	IM-1087
Green Oaks Potting Products, Inc. 2222 Lake Rockwell Rd. P.O. Box 979 Ravenna, OH 44266 330-296-2157 John A. Lyon, pres.	Green Oaks (7) (451) (161)	Portage	peat sand & gravel clay	559 45 43	559 45 43	Pe-89	IM-1142
H. T. Griffin Excavating, Inc. 3950 S. Berkey Southern Swanton, OH 43558 419-826-0230 Henry T. Griffin, owner	H. T. Griffin Excavating, Inc. (472)	Lucas	sand & gravel			Ls-G	IM-1090
Grimes Excavating Rte. 3 Box 121 New Matamoras, OH 45767 614-865-2267 Lewis Grimes, owner	Grimes Excavating (533)	Washington	sand & gravel			Wn-1008	IM-1111
Gwin Contracting Co. P.O. Box 205 Columbiana, OH 44408 330-482-2442 Lyle D. Gwin, pres.	Gwin Contracting Co. (30)	Mahoning	sandstone	8,840	8,840	Mg-62	IM-599
H & H Utilities Co. 7307 S. Kessler-Frederick Rd. West Milton, OH 45383 937-223-6752 Gerald Hochwalt, pres.	H & H Gravel (229)	Montgomery	sand & gravel			My-68	IM-646
J. M. Hamilton & Sons Co., Inc. 1974 Marion-Bucyrus Rd. Marion, OH 43302 614-382-2189 O. E. Hamilton, pres.	J. M. Hamilton & Sons Co., Inc. (59)	Marion	limestone	101,624	101,624	Mn-2	IM-423
Hardin Quarry Co., Inc. 12484 State Rte. 701 Kenton, OH 43326 419-675-1327 Richard Pees, pres.	Hardin Quarry Co., Inc. (38)	Hardin	limestone	216,052	216,052	Hdn-2	IM-443

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Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Norman Harpster 16069 State Rte. 235 Belle Center, OH 43310 937-464-5623 Norman Harpster, owner	Harpster Pit (553)	Hardin	sand & gravel			Hdn-H	IM-864
Harrison Sand & Gravel Co. 10980 Campbell Rd. Harrison, OH 45030 513-367-5174 Donald Gauck, v. pres.	Harrison Sand & Gravel Co. (135)	Hamilton	sand & gravel	94,886	94,886	Hmn-17	IM-295
Haubeil & Sons Asphalt & Materials, Inc. 379 Seney Rd. Chillicothe, OH 45601 614-773-6358 George Haubeil, pres.	Haubeil & Sons Asphalt & Materials, Inc. (491)	Ross	sand & gravel	129,847	129,847	Rs-H	IM-1052
Haueter Sand & Gravel, Inc. P.O. Box 206 Chardon, OH 44024 216-286-9482 Donald H. Haueter, pres.	Haueter Sand & Gravel, Inc. (108) Haueter Sand & Gravel, Inc. (545)	Geauga Geauga	sand & gravel sand & gravel	267,310	267,310	Gea-29 Gea-H	IM-215 IM-510
Heer Excavating, Inc. 7381 State Route 66 Archbold, OH 43502 419-445-3415 Daniel E. Heer, pres.	Mason Pit (634)	Williams	sand & gravel	23,201	23,201	Ws-22	IM-1222
Heiser Sand & Gravel Co. P.O. Box 2491 North Canton, OH 44720 330-499-8201 Richard L. Heiser, owner	Heiser Sand & Gravel Co. (323) Heiser Sand & Gravel Co. (608) Heiser Sand & Gravel Co. (609)	Stark Stark Stark	sand & gravel sand & gravel sand & gravel	60,965 1,350	60,965 1,350	Sk-688 Sk-HS Sk-HS1	IM-763 IM-1193 IM-1203
Paul N. Herdman P.O. Box 36 Lebanon, OH 45036 937-233-5555 Paul N. Herdman, pres.	Herdman Pit (429)	Warren	sand & gravel	4,000	4,000	Wan-46	IM-679, IM-842
Hidden Harbour Partners 6725 West Central Ave. Toledo, OH 43617 419-866-4800 Thomas Schlacter, pres.	Hidden Harbour Partners (645)	Lucas	sand & gravel			Ls-H1	IM-1277
Hillsdale Sand & Gravel, Inc. P.O. Box 223 Archbold, OH 43502 419-445-1015 Dean Miller, pres.	Hillsdale Sand & Gravel, Inc. (82)	Defiance	sand & gravel	4,379	4,379	De-2	IM-765
Hilltop Aggregate, Inc. P.O. Box 362 Mogadore, OH 44260 330-628-4000 Robert W. West, pres.	Hilltop Aggregate, Inc. (262)	Portage	sand & gravel	428,963	428,963	Pe-56	IM-127
Hilltop Basic Resources, Inc. One West Fourth St., Suite 1100 Cincinnati, OH 45202-3615 513-651-5000 John Steele, Jr., pres.	Fairborn Aggregate Plant (112) West Carrollton Aggregate Plant (232)	Clark, Greene Montgomery	sand & gravel sand & gravel	479,947 637,948	490,753 578,687	Ge-4 My-19	IM-394 IM-401, IM-916
Hocking Valley Concrete, Inc. 35255 Hocking Dr. Logan, OH 43138 614-385-2165 Mark Vaughn, pres.	Hocking Valley Concrete, Inc. (151)	Hocking	sand & gravel	55,000	70,000	Hg-262	IM-41
Hocking Valley Mulch 32091 Beech Camp Rd. Logan, OH 43138 614-385-6744 David E. Sheets, Jr., partner	Sheets Pit (657)	Hocking	sand & gravel	1,750	1,750	Hg-HV	IM-1284

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Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
William A. Hoffman, Jr. 25043 State Rte. 104 Circleville, OH 43113 614-474-2002 William A. Hoffman, Jr., owner	Hoffman Pit (480)	Pickaway	sand & gravel	3,435	3,435	Pky-H	IM-1039
Hollinger Excavating 2097 Hollansburg-Arcanum Rd. New Madison, OH 45346 937-996-5381 Thomas W. Hollinger, leasee	Hollinger Gravel (81)	Darke	sand & gravel	1,196	1,196	Dke-10	IM-326
Holloway Sand & Gravel Co., Inc. P.O. Box 456 Aberdeen, OH 45101-0456 937-544-5524 Dan Holloway, pres.	Holloway Sand & Gravel Co., Inc. (173)	Adams	limestone			Ads-H	IM-805
Holmes Limestone Co. P.O. Box 295 Berlin, OH 44610 330-893-2721 Merle Mullet, pres.	241 Plant (44) (19) (19) Bolivar Mine (76) Rainsberg Farm (151)	Holmes Stark Tuscarawas	limestone clay shale clay shale	111,646 6,238 3,198 58,936 44,916	111,646 6,238 3,198 58,936 44,916	Hs-67 Sk-235 Ts-H1	IM-768 IM-945 IM-927
Honey Creek Stone Co. P.O. Box 286 Petersburg, OH 44454 330-542-2372 Carmen Shick, pres.	Honey Creek Stone Co. (56)	Mahoning	limestone	248,852	265,000	Mg-54	IM-93
Hugo Sand Co. 7055 State Rte. 43 Kent, OH 44240 216-587-2700 Dorothy M. Strohm, pres.	Hugo Sand Co. (264)	Portage	sand & gravel	236,022	236,022	Pe-10	IM-138
Hydraulic Press Brick Co. 8900 Hemlock Rd. P.O. Box 31330 Independence, OH 44131 216-524-2950 Larry Cline, mgr.	Hydraulic Press Brick Co. (7)	Cuyahoga	shale	280,429	280,429	Cya-19	IM-95
Inland South Aggregates 51778 Darlington Rd. Negley, OH 44441 330-426-6733 Lorraine Sugar, pres.	Inland South Aggregates (539)	Columbiana	sand & gravel	56,656	63,475	Ca-351	IM-634
JP Sand & Gravel Co. 5911 Lockbourne Rd. P.O. Box 2 Lockbourne, OH 43137 614-497-0083 Richard A. Roberts, pres.	JP Sand & Gravel Co. (98)	Franklin	sand & gravel	457,969	457,969	Fn-52	IM-191
JTM Industries, Inc. 48699 County Rd. 275 Coshocton, OH 43812 614-622-8585 Bill Fletcher, pres.	Ross Clay Mine (181)	Coshocton	clay	41,845	42,645	Cn-JT	IM-1253
Glen James & Sons, Inc. 3930 Boggs Rd. Zanesville, OH 43701 614-454-1522 Glen James, pres.	Glen James & Sons, Inc. (626)	Muskingum	sand & gravel			Mum-J	IM-1229
Janson's Soil Service, Inc. 1492 Mechanicsville Rd. Rock Creek, OH 44084 216-466-3835 Peter E. Janson, III, pres.	Janson's Soil Service, Inc. (10) (82) (82)	Ashtabula	sand & gravel clay shale			Asa-14	IM-563
Jarrett Sand Co. 6505 Skadden Rd. Sandusky, OH 44870 419-359-1750 James Jarrett, owner	Jarrett Sand Co. (84)	Erie	sand & gravel	5,754	5,754	Ee-29	

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Jaymar, Inc. 8751 N. State Route 7 Cheshire, OH 45620 614-992-6637 Jay Hall, Jr., pres.	Jaymar, Inc. (544)	Gallia	sand & gravel	112,182	112,182	Ga-J	IM-1145
Jefferson Materials Co. 8505 State Rte. 14 Streetsboro, OH 44241 330-626-3816 Charles Rauh, pres.	Howitt (265)	Portage	sand & gravel	276,910	276,910	Pe-63	IM-82
Jimsco, Inc. P.O. Box 651 Dayton, OH 45449 937-233-7500 James T. McDonald, pres.	Taylorsville Rd. Hardfill (236)	Montgomery	sand & gravel	162	162	My-55	IM-571
Johnson Road Sand & Gravel 510 Johnson Rd. Kent, OH 44240 330-673-3396 Robert K. Heimann, pres.	Johnson Road Sand & Gravel (615)	Portage	sand & gravel	16,000	16,000	Pe-98	IM-1219
Johnson Stone Products, Inc. 202 State St. P.O. Box 39 Kipton, OH 44049 216-774-1601 Terry Johnson, pres.	Kipton Quarry (75)	Lorain	sandstone	11,500	0	Ln-J	IM-1300
Joseph Sand & Gravel, Inc. 16272 Boundary Rd. Wapakoneta, OH 45895 419-568-3787 Mary J. Joseph, owner	Joseph Sand & Gravel, Inc. (23)	Auglaize	sand & gravel			Ae-23	IM-508
K.C.C.I. P.O. Box 24 Morristown, OH 43759 614-782-1087 George Krulock, pres.	Apex (176)	Jefferson, Harrison	limestone	55,206	55,206	Jfn-K	IM-1164
Karg Sand & Gravel Co. 2088 Congress Lake Rd. Mogadore, OH 44260 330-628-2747 Thomas R. Karg, owner	Karg Sand & Gravel Co. (266)	Portage	sand & gravel			Pe-83	IM-179
Keener Sand & Clay Co. 330 Dering Ave. Columbus, OH 43207 614-444-1105 Carl F. Weiffenbach, pres.	Huron Plant (85)	Erie	sand & gravel	745	745	Ee-5	
Keeney Sand & Stone, Inc. 13320 Girdled Rd. Painesville, OH 44077 216-254-4582 Dennis Keeney, pres.	Keeney Sand & Stone, Inc. (60)	Lake	sandstone	61,019	61,019	Lke-K	IM-859
Kellstone, Inc. 3203 Harvard Ave. Newburgh Heights, OH 44105 216-883-7200 James A. Palladino, pres.	Kellstone, Inc. (174)	Erie	limestone	623,428	623,428	Ee-K	IM-727
Kieco Sand & Shale P.O. Box 470 Moxahala, OH 43761 614-342-1594 Mary Kiener, owner	Kieco Sand & Shale (61) (149)	Perry	sandstone shale			Py-K	IM-851
Kilbarger Construction, Inc. P.O. Box 946 Logan, OH 43138 614-385-6019 Edward Kilbarger, pres.	Kilbarger Gravel Pit (523)	Hocking	sand & gravel	650	650	Hg-329	IM-1112
Kimble Clay & Limestone Co. 3596 State Route 39 NW Dover, OH 44622-9801 330-343-1226 Floyd E. Kimble, owner	Kimble Clay & Limestone Co. (117) (41) (63) (63)	Tuscarawas	limestone sandstone clay shale	82,185 34,252 297,396 13,550	82,185 34,252 297,396 13,550	Ts-1818	IM-9

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
King Limestone, Inc. 53681 Spencer Rd. Cumberland, OH 43732 614-638-3942 Duane King, pres.	King Limestone, Inc. (147)	Guernsey, Muskingum	limestone	293,778	293,778	Gy-309	IM-1030
King Quarries, Inc. 41499 County Rd. 7 Caldwell, OH 43724 614-732-2923 David King, pres.	King Quarries, Inc. (194) King Quarries, Inc. (197)	Noble Noble	limestone limestone	772 453	772 453	Ne-K Ne-K1	IM-1254 IM-1292
Kinsman Sand & Gravel Co. P.O. Box 79 Kinsman, OH 44428 216-293-5400 Glenn B. Harnett, pres.	Kinsman Sand & Gravel Co. (593)	Ashtabula	sand & gravel	82,752	82,752	Asa-20	IM-1198
Kipp's Gravel Co., Inc. 4987 State Rte. 222 Batavia, OH 45103 513-732-1024 Melvin M. Kipp, pres.	Kipp's Gravel Co., Inc. (61)	Clermont	sand & gravel	169,763	169,763	Ct-7	IM-432
Kirby's Sand & Gravel, Inc. 4876 County Hwy. 43 Upper Sandusky, OH 43351 419-927-2260 Gene Kirby, owner	Kirby's Sand & Gravel, Inc. (382) Kirby's Sand & Gravel, Inc. (591)	Wyandot Wyandot	sand & gravel sand & gravel	178,352	178,352	Wt-17 Wt-K	IM-604 IM-943
Kleese Development Associates, Inc. 45 North Rd. Niles, OH 44446 330-652-5991 Robert Kleese, pres.	Kleese Development Associates, Inc. (499)	Trumbull	sand & gravel			Tl-K	IM-1101
Leonard E. Kleilein 2511 Mansfield-Lucas Rd. Lucas, OH 44843 419-524-2541 Leonard E. Kleilein, owner	Kleilein Pit (629)	Richland	sand & gravel			Rd-K	IM-1232
Knox County Board of Commissioners 110 East High St. Mt. Vernon, OH 43050 216-397-1590 James Henry, engineer	Apple Valley (148)	Knox	shale	2,976	2,976	Kx-K	IM-870
Koch Engineering Co., Inc. Knight Division 171 Kelley Ave. Akron, OH 44306 330-724-1277 Allen R. Smalley, mgr.	Koch Engineering Co., Inc. (174)	Stark	clay	3,380	3,380	Sk-K	IM-1236
T & K Kuhnle Co. P.O. Box 375 Newbury, OH 44065 216-626-4400 Thomas Kuhnle, pres.	T & K Kuhnle Co. (518)	Geauga	sand & gravel			Gea-TK	IM-902
L & I Natural Resources, Inc. 10369 Cones Rd. Loveland, OH 45140 513-683-2045 Jerry Walker, pres.	L & I Pit & Mill (430)	Warren	sand & gravel	119,050	119,050	Wan-50	IM-1006
L & M Mineral Co. 5205 State Rte. 39 Millersburg, OH 44654 330-893-2227 John E. Ling, Jr., pres.	Evans-Cox (64) Luikert (65) Spring (170) (55) (77) (77) Ridgeway (192) Hardy Salt (588)	Tuscarawas Tuscarawas Tuscarawas Tuscarawas Tuscarawas	shale clay limestone sandstone clay shale clay sand & gravel	 175 10,397 4,488 	 175 10,397 4,488 	Ts-1884 Ts-1914 Ts-1982 Ts-2041 Ts-SI	IM-6 D-0701 IM-621 D-1116 IM-569

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Lafarge Corp. Great Lakes Region P.O. Box 160 Paulding, OH 45879 419-399-4861 Andrew Robb, plant mgr.	Paulding Quarry (87) (42)	Paulding	limestone clay	959,560 151,295	959,560 151,295	Pg-1	IM-513
Lafarge Corp. 6715 Tippecanoe Rd., Bldg. C Canfield, OH 44406 330-533-3338 Wayne Lyons, pres.	Marblehead (84) Shalersville (277)	Ottawa Portage	limestone sand & gravel	3,600,000 1,139,854	3,400,000 1,096,552	Oa-7 Pe-68	IM-440 IM-660, IM-1047, IM-1107, IM-1124
	Navarre (453)	Stark	sand & gravel			Sk-241	IM-582
Lake Hope Asphalt, Inc. P.O. Box 38 Nelsonville, OH 45764 614-753-1005 Francis Efaw, pres.	Lake Hope Asphalt, Inc. (21)	Athens	sand & gravel	47,328	20,340	As-1161	IM-97
Lakeside Sand & Gravel Co. 3431 Frost Rd. Mantua, OH 44255-9444 216-274-2569 Larry Kotkowski, partner	Kotkowski Pit (268) Campbell Pit (661)	Portage Portage	sand & gravel sand & gravel	164,421 82,004	164,421 82,004	Pe-40 Pe-LS	IM-190 IM-1293
LaMar Sand & Fill, Ltd. 9090 State Route 73 Hillsboro, OH 45133 513-393-1264 Larry Miller, owner	LaMar Pit (656)	Highland	sand & gravel			Hd-L	IM-1297
Lancaster Sand & Gravel Co. 3232 Logan-Lancaster Rd. SE Lancaster, OH 43130 614-687-4420 Gerald Mohler, foreman	Lancaster Sand & Gravel Co. (92)	Fairfield	sand & gravel	907,845	907,845	Fd-13	IM-848
Latham Limestone, Inc. P.O. Box 77 Latham, OH 45646 614-493-2677 Robert Murray, pres.	Latham Limestone, Inc. (91)	Pike	limestone	373,641	380,000	Pke-13	IM-213
Leetonia Sand & Gravel Co., Inc. P.O. Box 236 Canfield, OH 44406 330-427-1015 Stephen Holowach, pres.	Leetonia Sand & Gravel Co., Inc. (463) (65)	Columbiana	sand & gravel sandstone	9,750	9,750	Ca-982	IM-1108
Leonard Sand & Gravel 5668 Springdale Rd. Cincinnati, OH 45251 513-741-9124 Leonard family, owner	Leonard Sand & Gravel (137)	Hamilton	sand & gravel	0	400	Hmn-67	IM-529
Lerkis Asphalt Co., Inc. & Subsidiary 550 Dan St. Akron, OH 44310 216-376-7560 Gus J. Lerkis, pres.	Minor Rd. Plant (328)	Summit	sand & gravel	20,000	20,000	St-39	IM-983
Letart Corp. P.O. Box 430 Gallipolis Ferry, WV 25515-0430 304-675-7516 Jon Thompson, pres.	Plant #5 (559) Plant #4 (560)	Meigs Meigs	sand & gravel sand & gravel			Ms-L Ms-308	IM-1159 IM-1174
Lingvai Peat Co. R.R. 2 01693 Rd. 8 Edgerton, OH 43517 419-298-2058 Ronald Lingvai, owner	Lingvai Peat Co. (4)	Williams	peat	96	0	Ws-17	
Link Trucking Co. 5209 State Rte. 60 N McConnelsville, OH 43756 614-962-2150 Paul Kussmaul, pres.	Link Trucking Co. (647)	Morgan	sand & gravel	8,999	10,615	Mon-L	IM-1266

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
London Tile Co. 65 Walnut St. New London, OH 44851 419-929-1551 Sylvia Danison, pres.	Biglow (1)	Ashland	shale	1,224	1,224	Ald-1	IM-334
Loxley Aggregates, Inc. 4277 Falls Rd. Lewisburg, OH 45338 937-839-5488 Matthew L. Loxley, pres.	Loxley Aggregates, Inc. (488) (101)	Preble	sand & gravel clay	1,208 4,716	1,208 4,716	Pre-9	IM-1095
Lucky Sand & Gravel Co. 12018 Frost Rd. Mantua, OH 44255 216-562-6196 Bernard Udelson, pres.	Lucky Sand & Gravel Co. (570)	Portage	sand & gravel	122,866	122,866	Pe-L	IM-154
Ludowici-Celadon Co. P.O. Box 69 New Lexington, OH 43764 614-342-1995 Jerry Smith, pres.	Donnelly Pit (46)	Perry	shale			Py-212	IM-58
M & J Sand & Gravel, Inc. 130 Fourth St. Parkersburg, WV 26101 304-375-9939 Gale Wilson, pres.	M & J Sand & Gravel, Inc. (590) (152)	Washington	sand & gravel shale	11,976	11,976	Wn-1010	IM-1163
M & M Builders Supply Co. 5820 Carbon Hill Rd. East Palestine, OH 44413 330-426-9958 Hugh Madden, owner	M & M Builders Supply Co. (47) (106) (106)	Columbiana	sandstone clay shale			Ca-970	IM-1024
M.C. Trucking Co., Inc. P.O. Box 158 Sabina, OH 45169 937-382-2288 Craig Beam, pres.	Plano Rd. (199) (662)	Ross	limestone sand & gravel	521,000	521,000	Rs-MC	IM-1298
Al Mackey Enterprises, Inc. P.O. Box 269 Swanton, OH 43558 419-826-7700 Al Mackey, pres.	Al Mackey Enterprises, Inc. (622) Al Mackey Enterprises, Inc. (639) Al Mackey Enterprises Inc. (655) Al Mackey Enterprises, Inc. (646)	Fulton Fulton Fulton Lucas	sand & gravel sand & gravel sand & gravel sand & gravel	75,000	75,000	Ftn-M Ftn-M1 Ftn-M2 Ls-M	IM-1246 IM-1275 IM-1294 IM-1261
MacRitchie Materials, Inc. P.O. Box 90 West Millgrove, OH 43467 419-288-2790 Donald B. MacRitchie, pres.	MacRitchie Materials, Inc. (130)	Wood	limestone	417,418	417,418	Wd-1	IM-548
Maple Grove Stone Co. P.O. Box 136 Old Fort, OH 44861 419-992-4236 Tim Bell, pres.	Maple Grove Stone Co. (106)	Seneca	limestone	148,554	148,554	Sa-2	IM-352
Marshall Quarry, Inc. 11199 State Rte. 124 Hillsboro, OH 45133 937-466-2636 Ronald L. Main, pres.	Marshall Quarry, Inc. (43)	Highland	limestone	11,028	11,028	Hd-4	IM-406
Donald Martin Contracting 1875 Roxanna-New Burlington Rd. Waynesville, OH 45068 937-862-4182 Roger J. Martin, owner	Donald Martin Contracting (403)	Greene	sand & gravel	1,461	1,461	Ge-40	IM-923
Martin Marietta Aggregates 5253 Wooster Rd. Cincinnati, OH 45226 513-533-2173 Michael Vickers, admin. mgr.	Fairfield (33) Ross (34) Cleves (126) Camp Dennison (127) Cleves (130) Roell (131) Miamitown (468) Lynchburg (175) Apple Grove (209)	Butler Butler Hamilton Hamilton Hamilton Hamilton Hamilton Highland Meigs	sand & gravel limestone sand & gravel sand & gravel limestone sand & gravel sand & gravel sand & gravel limestone sand & gravel limestone sand & gravel	 29,737 671,469 37,024 616,070 10,530 241,590 637,014 729,000	 0 658,339 0 644,540 0 293,502 574,275 694,000	Br-14 Br-29[4] Hmn-3 Hmn-5[4] Hmn-64 Hmn-68 Hmn-D[4] Hd-D Ms-205	IM-147 IM-149 IM-137 IM-148 IM-821 IM-747 IM-1079 IM-1170 IM-30

[4]Sales of limestone only; production occurs at another location.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Martin Marietta Magnesia Specialties, Inc. 755 Lime Rd. Woodville, OH 43469 419-849-3111 Tim Albertson, plant acct.	Woodville Quarry (102)	Sandusky	limestone	2,562,402	2,562,402	Sy-1	IM-537
Mason's Sand & Gravel Co. 2385 Rathmell Rd. Columbus, OH 43207 614-491-3611 Gordon Masteller, pres.	Mason's Sand & Gravel Co. (100)	Franklin	sand & gravel			Fn-11	IM-234
Massillon Materials, Inc. 26 N. Cochran St. P.O. Box 499 Dalton, OH 44618 330-832-4767 Howard J. Wenger, pres.	Massillon Materials, Inc. (495)	Stark	sand & gravel	515,983	515,983	Sk-M	IM-1031
Mathews Sand & Gravel 5061 Monroe Center Conneaut, OH 44030 216-594-1130 Edward Mathews, owner	Mathews Sand & Gravel (651)	Ashtabula	sand & gravel	890	890	Asa-M	IM-1301
Maxville Quarries, Inc. 7957 State Rte. 668 S Logan, OH 43138 614-385-2568 David J. McCort, pres.	Carpenter (89) Downhour (168)	Perry Perry	limestone limestone	199,765	0 208,223	Py-235 Py-343	IM-515 IM-1061
McCarthy Stone Quarry 6326 County Rd. 61 Upper Sandusky, OH 43351 419-294-2611 Charles H. McCarthy, owner	McCarthy Stone Quarry (133)	Wyandot	limestone	214,604	214,604	Wt-3	IM-298
Mecco, Inc. 2504 S. Main St. Middletown, OH 45042 513-422-3651 David T. Morgan, pres.	Mecco, Inc. (39)	Butler	sand & gravel	325,000	325,000	Br-15	IM-316
Mechanicsburg Sand & Gravel, Inc. P.O. Box 18 Mechanicsburg, OH 43044 937-834-2606 John D. Cushman, pres.	Mechanicsburg Sand & Gravel, Inc. (50)	Champaign	sand & gravel	252,241	252,241	Cpn-22	IM-889
Meigs County Commissioners Rte. 2 Rocksprings Rd. Pomeroy, OH 45769 614-992-2911 David H. Spencer, office mgr.	Meigs County Pit (211)	Meigs	sand & gravel	38,038	38,038	Ms-301	IM-619
Melvin Stone Co. 228 Melvin Rd. Wilmington, OH 45177 937-584-2486 Craig Beam, pres.	Melvin (17) (652) Fayette (28) Williamsport (92) Island Rd. (251) Melvin Stone Co. (603) Richards Farms (481)	Clinton Fayette Pickaway Pickaway Pickaway Pickaway	limestone sand & gravel limestone limestone sand & gravel sand & gravel sand & gravel	1,376,346 58,506 218,288 333,951 332,969	1,376,346 58,506 218,288 333,951 332,969	Cln-1 Fe-1 Pky-4 Pky-1 Pky-AAC Pky-R	IM-241 IM-831 IM-209 IM-428 IM-1204 IM-993
Menuez Bros. Sand & Gravel, Inc. 5366 County Rd. 349 Rte. 1 Millersburg, OH 44654 330-674-4254 Gene Menuez, pres.	Fair Pit (153)	Holmes	sand & gravel	262,863	267,000	Hs-82	IM-707
Mesenburg Bros., Inc. R.D. 1 Collins, OH 44826 419-668-5691 Peter J. Mesenburg, pres.	Mesenburg Bros., Inc. (20)	Huron	sandstone	11,264	11,264	Hrn-8	IM-268
Miami River Stone Co. 1120 Milligan Ct., Suite 104 Sidney, OH 45365 937-492-5412 Bradley Comer, pres.	Miami River Stone Co. (110) Washington Twp. Pit (312) Rock Run Quarry (111) Miami River Stone Co. (311) Staley Pit (577)	Shelby Shelby Shelby Shelby Shelby	limestone sand & gravel limestone sand & gravel sand & gravel	584,404 111,240	584,404 111,240	Shy-6 Shy-13 Shy-16 Shy-17 Shy-SS	IM-389 IM-412 IM-411 IM-389 IM-438

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Doug Mill 12313 Staddens Bridge Rd. Newark, OH 43056 614-763-3901 Doug & Susan Mill, owners	Newark (174)	Licking	sand & gravel			Lg-2	IM-184
Miller Bros. Construction, Inc. Rte. 1 Box 30 Archbold, OH 43502 419-445-1015 Dean Miller, pres.	Miller Bros. Construction, Inc. (526)	Logan	sand & gravel			Lgn-M	IM-799
Miller Bros. Gravel, Inc. 7900 S. Kessler-Frederick Rd. Tipp City, OH 45371 937-836-0981 Thomas O. Miller, pres.	Miller Bros. Gravel, Inc. (233)	Montgomery	sand & gravel	301,623	237,437	My-52	IM-348
Miller Mining, Inc. P.O. Box 525 Sugarcreek, OH 44681 330-852-4511 Olen Miller, pres.	Miller Mining, Inc. (142)	Tuscarawas	clay			Ts-MMO	IM-1166
Miller Sand & Gravel, Inc. 10228 State Rte. 82 Windham, OH 44288 330-326-3157 Donald M. Miller, owner	Miller Sand & Gravel, Inc. (272)	Portage	sand & gravel	3,340	3,340	Pe-39	IM-174
Mitchell Transport, Inc. 35746 Lake Shore Blvd. Eastlake, OH 44094 216-942-9191 Robert Amos, pres.	North Park Reclamation Clay Center (92)	Lake	clay			Lke-M	IM-1059
Mohican Organic Products, Inc. Rte. 1, 47 Milligan Rd. Lucas, OH 44843 419-892-2212 Farley & Joyce Amos, owners	Mohican Pit (1)	Ashland	peat			Ald-13	
Moore's Excavating Co. 2222 N. State Rte. 68 Urbana, OH 43078 937-653-6288 Ralph Moore, owner	Moore's Excavating Co. (51) (153) Moore's Excavating Co. (620)	Champaign Clark	sand & gravel clay sand & gravel	68,482 11,826	68,482 11,826	Cpn-20 Ck-29	IM-482 IM-1233
Morrow Gravel Co. 11641 Mosteller Rd. Cincinnati, OH 45241 513-771-0820 James P. Jurgensen, pres.	Urbana Pit (48) Morrow Gravel Co. (63) Morrow Gravel Co. (501) Morrow Gravel Co. (502) Morrow Gravel Co. (503)	Champaign Mercer Warren Warren Warren	sand & gravel limestone sand & gravel sand & gravel sand & gravel	 128,656 399,283	 128,656 399,283	Cpn-1 Mr-2 Wan-M Wan-M1 Wan-M2	IM-371 IM-430 IM-728, IM-1065 IM-1051 IM-837
Morton International, Inc. Morton Salt Division P.O. Box 428 Grand River, OH 44045-0428 216-639-4243 Richard L. Wilson, plant mgr.	Fairport Mine (2)	Lake	salt	1,497,491	1,554,356	Lke-6	
Morton International, Inc. Morton Salt Division 151 S. Industrial St. P.O. Box 337 Rittman, OH 44270-0337 216-925-3015 Jay Stewart, pres.	Morton Salt Well Field (5)	Wayne	salt	530,027	545,045	We-9129	
Muskingum River Gravel Co. P.O. Box 1585 Zanesville, OH 43702-1585 614-453-0624 Larry E. Young, v. pres.	Muskingum River Gravel Co. (152) Muskingum River Gravel Co. (247) Muskingum River Gravel Co. (448) Muskingum River Gravel Co. (452) Plant #2 (367)	Hocking Muskingum Muskingum Ross Washington	sand & gravel sand & gravel sand & gravel sand & gravel sand & gravel	85,000 125,000 50,000 200,000 12,750	85,000 125,000 50,000 200,000 12,750	Hg-301 Mum-228 Mum-262 Rs-M Wn-38	IM-458 IM-421 IM-422 IM-114 IM-701
National Aggregates, Inc. P.O. Box 340 Malvern, OH 44644 330-866-1999 Bill Sheckler, pres.	National Aggregates, Inc. (610)	Stark	sand & gravel	262,889	262,889	Sk-1017	IM-1186

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
National Lime & Stone Co. P.O. Box 120 Findlay, OH 45839-0120 419-422-4341 R. W. Kruse, v. pres.	Lima Plant (5)	Allen	limestone	1,156,496	920,979	An-3	IM-484
	Buckland Plant (11)	Auglaize	limestone	536,698	518,464	Ae-10	IM-486
	Wapakoneta Plant (24)	Auglaize	sand & gravel	211,936	204,809	Ae-30	IM-598
	Bucyrus Plant (18)	Crawford	limestone	1,866,299	1,755,735	Cd-1	IM-404
	Delaware Plant (21)	Delaware	limestone	2,817,032	2,731,237	Del-5	IM-207
	Findlay Plant (149)	Hancock	limestone	1,310,287	1,126,512	Hk-7	IM-1002
	Marion Plant (60)	Marion	limestone	667,571	907,821	Mn-3	IM-168
	Carey Plant (134)	Wyandot	limestone	2,674,380	2,800,146	Wt-1	IM-405
	Upper Sandusky Plant (380)	Wyandot	sand & gravel	267,205	251,481	Wt-15	IM-376
	Upper Sandusky Plant (381)	Wyandot	sand & gravel			Wt-18[5]	IM-551
Neer's Sand & Gravel 4859 Twp. Rd. 45 Bellefontaine, OH 43311 937-585-6733 Arden J. Neer, Sr., owner	Neer's Sand & Gravel (189)	Logan	sand & gravel	140,683	142,523	Lgn-6	IM-459
Nelson Sand & Gravel, Inc. P.O. Box 466 Kingsville, OH 44048 216-224-0198 Thomas H. Nelson, pres.	Nelson Sand & Gravel, Inc. (14)	Ashtabula	sand & gravel			Asa-12	IM-1130
	Nelson Sand & Gravel, Inc. (510)	Ashtabula	sand & gravel	43,100	43,100	Asa-N	IM-1109
Nelson Stark Co. 7685 Fields-Ertel Rd. Cincinnati, OH 45241 513-489-0871 Charles Stark, pres.	Nelson Stark Gravel Pit (520)	Hamilton	sand & gravel	7,479	7,479	Hmn-C	IM-1132
Newbury Sand & Gravel 15365 Ravenna Rd. Burton, OH 44021 216-834-8500 Blaine M. Kaufman, owner	Newbury Sand & Gravel (517)	Geauga	sand & gravel	22,994	22,994	Gea-N	IM-1123
	(50)		sandstone	28,302	28,302		
New Carlisle Sand & Gravel Co. 6090 S. Scarff Rd. New Carlisle, OH 45344 937-845-0696 W. Lee Upton, owner	New Carlisle Sand & Gravel Co. (217)	Miami	sand & gravel	604	604	Mi-501	
Newton Asphalt Paving, Inc. P.O. Box 86 Strasburg, OH 44680 330-878-5648 G. A. Gessner & C. T. Newton, partners	516 (428)	Tuscarawas	sand & gravel	72,754	72,754	Ts-2001	IM-1004
Nick's Trucking 14228 Madison Rd. Middlefield, OH 44062 216-632-1949 Nick R. Loze, owner	Nick's Trucking (584)	Trumbull	sand & gravel	5,580	5,580	Tl-16	IM-1158
Andy Nixon Contractors, Inc. 14088 U.S. Route 20A Montpelier, OH 43543 419-485-5528 Andy Nixon, pres.	Nixon Pit (665)	Williams	sand & gravel	4,400	4,400	Ws-N	IM-1291
Northern Ohio Materials, Inc. 8300 State Rte. 14 Streetsboro, OH 44241 330-339-4313 John Moyle, mgr.	Northern Ohio Materials, Inc. (500)	Tuscarawas	sand & gravel	131,514	131,514	Ts-2018	IM-1076
Northern Ohio Paving Co. 1749 Highland Rd. Twinsburg, OH 44087 216-425-7861 Walter H. Edwards, pres.	Allied Plant #3 (316)	Stark	sand & gravel	296,440	296,440	Sk-N	IM-156
Northshore Coal, Inc. 100 W. Main St. St. Clairsville, OH 43950 614-695-7237 C. F. Dawson, pres.	Northshore Limestone (195)	Belmont	limestone			Bt-N	IM-1283

[5]Information for Wt-18 is reported under Wt-15.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
North Shore Stone Quarries, Inc. 72 Fernhill Ave. Columbus, OH 43228 614-878-0620 Clifford Hammond, pres.	North Shore Stone Quarries, Inc. (109)	Seneca	limestone	3,322	3,322	Sa-8	IM-313
Northwood Stone & Asphalt Co. 1558 County Rd. 105 Belle Center, OH 43310 937-464-3833 Mark Shelly, pres.	Northwood Stone & Asphalt Co. (51)	Logan	limestone	228,371	279,742	Lgn-2	IM-494
Northwood Stone & Asphalt Co. 20620 Spangler Rd. West Mansfield, OH 43358 937-464-3833 Mark Shelly, pres.	Rockhold Division (119)	Union	limestone	303,108	440,582	Un-1	IM-208
NuWay Services, Inc. 3441 Sportsman Club Rd. Johnstown, OH 43031 614-587-2451 George McInturff, pres.	Nethers Pit (196)	Licking	clay			Lg-N	IM-1295
OHM Remediation Services Corp. 16406 U.S. Route 224 E Findlay, OH 45840 419-425-6047 James Kirk, pres.	OHM Remediation Services Corp. (169)	Coshocton	clay			Cn-OHM	IM-1247
Carl E. Oeder & Sons Sand & Gravel 3890 Turtlecreek Rd. Lebanon, OH 45036 513-494-1238 Carl E. Oeder, pres.	Oeder Pit (352)	Warren	sand & gravel	434,092	434,092	Wan-41	IM-629
Oglebay Norton Industrial Sands, Inc. 975 Linden Ave. P.O. Box 4477 Zanesville, OH 43702 614-452-2775 Mark Juszli, pres.	Millwood (644) (24) Glass Rock (48) (137)	Knox Perry	sand & gravel sandstone sandstone clay	7,495 179,608 295,079	7,495 179,608 295,079	Kx-1 Py-344	IM-269 IM-1014
Ohio Asphaltic Limestone Corp. 8591 Mad River Rd. Hillsboro, OH 45133 937-364-2191 W. C. Mason, pres.	Ohio Asphaltic Limestone Corp. (42)	Highland	limestone	442,986	442,000	Hd-3	IM-253
Ohio Bulk Transfer Co. P.O. Box 25527 Garfield Heights, OH 44125 216-883-7200 James Palladino, pres.	Twinsburg Sand & Gravel (68)	Summit	sandstone			St-60	IM-1206
Ohio-West Virginia Excavation 56929 Ferry Landing Rd. Dilles Bottom, OH 43947 614-676-7464 Dennis Hendershot, pres.	OH-WV Excavation (424)	Monroe	sand & gravel			Me-508	IM-1000
Oldtown Coal Co. 4412 Pleasant Valley Rd. SE Dennison, OH 44621 614-922-3942 Mary J. Brown, pres.	CW/MWCD Clay Project (183)	Stark	clay	177,788	177,788	Sk-O	IM-1276
Olen Corp. 4755 S. High St. Columbus, OH 43207-4028 614-491-1515 Wayne Rayburn, pres.	Stewart Plant #4 (459) Hilliard Plant #1 (102) (154) Columbus Plant #3 (465) Fredericktown Plant #2 (161) St. Louisville Plant #5 (176)	Athens Franklin Franklin Knox Licking	sand & gravel sand & gravel limestone sand & gravel sand & gravel sand & gravel	58,000 88,500 467,000 1,876,700 473,600 222,420	90,000 90,000 490,000 2,502,000 622,000 265,000	As-W Fn-43 Fn-58 Kx-16 Lg-31	IM-979 IM-188 IM-1023 IM-793 IM-246
Oneida Sand & Gravel, Inc. 8000 Blade Rd. NW Malvern, OH 44644 330-863-0808 Louis H. Smitley, pres.	Oneida Sand & Gravel, Inc. (47)	Carroll	sand & gravel	108,766	108,766	Cl-204	IM-554

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Osborne Materials Co. P.O. Box 248 Grand River, OH 44045-0248 216-357-5562 Harold T. Larned, pres.	Osborne Dredge (2)	Lake Erie	sand & gravel (dredged)	113,886	113,886	Lke-D	
Oster Sand & Gravel, Inc. 5947 Whippel Ave. NW North Canton, OH 44720-7692 330-494-5472 Marlene K. Oster, pres.	Massillon Plant (326) Mudbrook Plant (581) Bolivar Pit (586)	Stark Stark Tuscarawas	sand & gravel sand & gravel sand & gravel	515,352 49,154 260,886	515,352 49,154 260,886	Sk-165 Sk-R Ts-2036	IM-192, IM-781 IM-697 IM-1155
Ours Sand & Gravel 20444 State Rte. 7 S. Crown City, OH 45623 614-256-1378 Donald Ours, owner	Ours Sand & Gravel (466)	Gallia	sand & gravel	8,749	8,749	Ga-O	IM-1028
P & H Construction 3745 S. Third St. Ironton, OH 45638 614-533-3030 Paul Popov, pres.	P & H Mine (182)	Lawrence	shale			Le-PH	IM-1268
R. H. Penick Co. 1504 Blue Jay Rd. Heath, OH 43056 614-323-3040 R. H. Penick, owner	R. H. Penick Co. (3)	Licking	salt	18,906	18,906	Lg-45	
Penry Stone Co. P.O. Box 176 Radnor, OH 43066 614-595-3373 Walter Penry, owner	Radnor Plant (23) Prospect Plant (198)	Delaware Marion	limestone sand & gravel	419,550 69,206	419,550 69,206	Del-2 Mn-4	IM-299 IM-290
Phillips Sand & Gravel U.S. Rte. 35 Box 187 Alpha, OH 45301 937-426-5461 George E. Phillips, pres.	Phillips Sand & Gravel (115)	Greene	sand & gravel	413,380	413,380	Ge-36	IM-305
Piketon Sand & Gravel 4281 Roush Rd. Hillsboro, OH 45133 937-364-2311 John B. Patton, pres.	Piketon (255)	Pike	sand & gravel	638,888	696,383	Pke-24	IM-222
Piqua Materials, Inc. Piqua Minerals Division 1750 W. Statler Rd. Piqua, OH 45356 937-773-4824 Albert R. Donovan, mgr.	Piqua Minerals Division (64)	Miami	limestone	597,897	503,169	Mi-1	IM-382
Pleasant Valley Limestone 12321 Ideal Rd. Byesville, OH 43723 614-685-6726 George V. Thompson, pres.	Pleasant Valley Limestone (185)	Muskingum	limestone	87,512	87,512	Mum-907	IM-1200
C. F. Poeppelman, Inc. 4755 N. State Rte. 721 Bradford, OH 45308 937-448-2191 James Poeppelman, pres.	C. F. Poeppelman, Inc. (67)	Miami	limestone	415,097	415,097	Mi-10	IM-335
Portage Lakes Sand & Gravel Co. 2800 N. Turkeyfoot Rd. Akron, OH 44319 330-644-2285 Douglas K. Rennick, pres.	Portage Lakes Sand & Gravel Co. (384)	Summit	sand & gravel			St-53	IM-874
Powell Gravel & Topsoil, Inc. P.O. Box 214 Harrison, OH 45030 513-353-1400 Ron Powell, pres.	Powell Gravel & Topsoil, Inc. (134)	Hamilton	sand & gravel	585,388	585,388	Hmn-71	IM-771

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Prairie Lane Sand & Gravel Co. 4401 Prairie Lane Rd. P.O. Box 233 Wooster, OH 44691 330-262-6821 Ralph W. Miller, Jr., pres.	Prairie Lane Sand & Gravel Co. (372) (179)	Wayne	sand & gravel shale	275,749 27,731	275,749 27,731	We-11	IM-547
Precision Aggregate, Inc. 12205 E. Gypsy Lane Rd. Bowling Green, OH 43402 419-352-4681 Randy G. Schmeltz, pres.	Precision Aggregate II (183) (666) Precision Aggregate I (379)	Wood Wyandot	limestone sand & gravel sand & gravel	82,645 11,121 28,247	82,645 11,121 28,247	Wd-14 Wt-4	IM-1157 IM-520
Putnam Stone Co. R.R. 1, 7053 Road M Ottawa, OH 45875-9754 419-523-6004 Tony Shroyer, pres.	Putnam Stone Co. (98)	Putnam	limestone	291,163	309,038	Pm-2	IM-570
Quality Ready Mix, Inc. R.R. 5 Wapakoneta, OH 45895 419-738-2817 Robert E. Hirschfeld, pres.	Quality Pit (25)	Auglaize	sand & gravel	43,258	43,258	Ae-16	IM-595
Quality Stone Co. 8751 N. State Rte. 7 Cheshire, OH 45620 614-992-6637 Jay Hall, Jr., pres.	Quality Stone Co. (148) Route 32 (182)	Vinton Vinton	limestone limestone	 678,192	 678,192	Vn-190 Vn-193	D-0761
Quarry Trails 7500 S. Cassel Rd. P.O. Box 520 Vandalia, OH 45377 937-667-4431 John E. Moyer, Sr., pres.	Quarry Trails (178)	Montgomery	limestone			My-Q	IM-860
R & S, Inc. 7522 Wales Rd. NW North Canton, OH 44720 330-499-1024 Gary R. Ross, pres.	Copley Sand & Gravel (427)	Summit	sand & gravel			St-54	IM-934
Rack Sand, Inc. 5175 Este Ave. Cincinnati, OH 45232 513-242-0271 Roy Schweitzer, owner	Rack Sand, Inc. (139)	Hamilton	sand & gravel	75,099	75,099	Hmn-10	IM-226
Rainbow Sand & Gravel, Inc. 9500 Elliman Rd. Mantua, OH 44255 216-562-4701 Bernard Udelson & Jeremy Samson, owners	Rainbow Sand & Gravel, Inc. (280)	Portage	sand & gravel			Pe-64	IM-1017
John P. Raisch, Inc. P.O. Box 93 Miamisburg, OH 45342 937-866-3094 John P. Raisch, owner	John P. Raisch, Inc. (562)	Montgomery	sand & gravel			My-R	IM-539
Rash Energy, Inc. 3114 U.S. Route 62 Dundee, OH 44624 330-359-5364 Freeman Mullet, pres.	Mt. Eaton Reclamation (64) (144) (144)	Wayne	sandstone clay shale	 48,000 27,000	 48,000 27,000	We-26	IM-690, IM-1210
Red Brush Peat Co. 6945 Red Brush Rd. Ravenna, OH 44326 330-297-0923 Barbara H. Linger, owner	Red Brush Peat Co. (482) (116) (9)	Portage	sand & gravel clay peat	1,947 156 1,768	1,947 156 1,768	Pe-61	IM-1064
Redland Ohio, Inc. 128 E. Main St. Woodville, OH 43469 419-849-2321 Gary Zagar, operations mgr.	Millersville Plant (103) Woodville Plant (104)	Sandusky Sandusky	limestone limestone	 1,376,684	 1,567,581	Sy-4[6] Sy-3	IM-381 IM-282

[6]Information for Sy-4 is reported under Sy-3.

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Richards & Son, Inc. 49947 State Rte. 338 Racine, OH 45771 614-247-2311 Dennis R. Taylor, v. pres.	Richards & Son, Inc. (212)	Meigs	sand & gravel	650,000	650,000	Ms-298	IM-32
Richards Service Garage 2170 Wilberforce-Clifton Rd. Xenia, OH 45385 937-372-8263 Roger Richards, owner	Richards Service Garage (547)	Greene	sand & gravel			Ge-R	IM-829
Richland Moulded Brick Co. 1000 Richland Shale Rd. P.O. Box 1711 Mansfield, OH 44901 419-524-0000 Dudley P. Frame, Jr., pres.	Richland Moulded Brick Co. (114)	Richland	shale	25,000	25,000	Rd-R	IM-1035
Ridge Township Quarry 16905 Middlepoint Rd. Van Wert, OH 45891 419-238-2533 Jenny Lautenschleger, foreman	Ridge Township Quarry (122)	Van Wert	limestone	63,491	63,491	Vt-7	IM-642
Ries Sand & Gravel 169 State Rte. 95 Jeromesville, OH 44840 419-368-7833 Robert Ries, owner	Ries Sand & Gravel (6)	Ashland	sand & gravel	1,801	1,801	Ald-9	IM-745
Riverside Sand & Gravel Co., Inc. P.O. Box 324 Tallmadge, OH 44278-0324 330-673-2021 Albert H. Acken, Jr., pres.	Riverside (333) (49)	Summit	sand & gravel sandstone	18,539 884	18,539 884	St-24	IM-239
Gary Roberts Excavating 570 Derby Downs Rd. Newark, OH 43055 614-763-3206 Gary L. Roberts, owner	Gary Roberts Excavating (419)	Licking	sand & gravel	1,914	2,914	Lg-504	IM-991
Rockwell Sand & Gravel, Inc. 8300 State Route 14 Steetsboro, OH 44241 330-626-5577 Roger Schuck, pres.	Rockwell Sand & Gravel, Inc. (273)	Portage	sand & gravel	268,372	268,372	Pe-85	IM-700
Rogers Group, Inc. dba Norwalk Sand & Gravel P.O. Box 338 Sandusky, OH 44871-0338 419-483-4390 Frank Warren, CEO	Norwalk Sand & Gravel (157)	Huron	sand & gravel	316,070	316,070	Hrn-1	IM-550
Rogers Group, Inc. dba Sandusky Crushed Stone Co. P.O. Box 338 Sandusky, OH 44871-0338 419-625-8493 Frank Warren, CEO	Parkertown Quarry (25)	Erie	limestone	3,146,380	3,146,380	Ee-11	IM-263
Jim Romig Excavating 8084 Dawn Rd. Sherrodsville, OH 44675 614-269-1225 James Romig, owner	Wilkins Pit (153)	Coshocton	limestone	1,860	1,860	Cn-A	IM-1011
Ross County Gravel Co. P.O. Box 158 Sabina, OH 45169-0158 937-584-2486 Craig Beam, pres.	Ross County Gravel Co. (530)	Ross	sand & gravel	213,303	0	Rs-R	IM-1143

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Rubber City Sand & Gravel Co. P.O. Box 106 Uniontown, OH 44685 330-699-3311 William H. Leach, Sr., owner	Rubber City Sand & Gravel Co. (334)	Summit	sand & gravel	60,912	60,912	St-9	IM-167
Rubel Quarry, Inc. 35479 State Rte. 78 Lewisville, OH 43754 614-567-3217 Randy Rubel, pres.	Rubel Quarry, Inc. (164)	Monroe	limestone	9,628	9,628	Me-509	IM-1094
Rumpke Mountain Mining Co. 10795 Hughes Rd. Cincinnati, OH 45251 513-851-0122 William J. Rumpke, pres.	Rumpke Mountain Mining Co. (193) (190)	Hamilton	limestone shale	50,764 255,076	50,764 255,076	Hmn-72	IM-1264
Rupp Construction, Inc. 18228 Fulton Rd. Marshallville, OH 44645 330-855-2781 Gary Radabaugh, pres.	Rupp Construction, Inc. (373)	Wayne	sand & gravel	391,218	391,218	We-7	IM-471
S. & M. Builders, Inc. 7862-F W. Central Ave. Toledo, OH 43617 419-841-9113 Richard Moses, pres.	S. & M. Builders Pit (659)	Lucas	sand & gravel	14,752	14,752	Ls-SMB	IM-1290
S & S Aggregate, Inc. P.O. Box 1585 Zanesville, OH 43702-1585 614-453-0624 Larry E. Young, v. pres.	Plant #1 (101) Twin Lakes Sand, Inc. (281) Twin Lakes Sand, Inc. (282) Twin Lakes Sand, Inc. (336)	Franklin Portage Portage Summit	sand & gravel sand & gravel sand & gravel sand & gravel	 125,000 50,000 105,000	 125,000 50,000 105,000	Fn-24 Pe-59 Pe-67 St-44	IM-266 IM-210 IM-202 IM-178
S & S Transport, Inc. 6710 County Rd. 624 Millersburg, OH 44654 330-674-0051 Phil Schlabach, owner	Patterson (470)	Holmes	sand & gravel			Hs-J	IM-1043
S & W Cement Construction, Inc. 2419 U.S. Rte. 68 N Yellow Springs, OH 45387 937-374-1234 Joann Weddle, owner	S & W (549)	Greene	sand & gravel			Ge-W	IM-645
Salt Creek Materials, Inc. 880 Spry Rd. Zanesville, OH 43701 614-872-3217 Charles O. Lighthizer, owner	Salt Creek Materials, Inc. (248) Salt Creek Materials, Inc. (144)	Muskingum Muskingum	sand & gravel limestone	 12,634	 12,684	Mum-216 Mum-269	IM-689 IM-1009
Samco, Inc. 10217 State Rte. 534 N Middlefield, OH 44062 216-272-5158 J. Jim Holmes, pres.	Springbrook (340) (184)	Trumbull	sand & gravel clay	432,616	432,616	Tl-12	IM-131
Sandkuhl Clay Works, Inc. 05536 Kossuth-Amanda Rd. Spencerville, OH 45887 419-647-2905 Leslie E. Sandkuhl, pres.	Sandkuhl Clay Works, Inc. (2)	Auglaize	clay	6,699	6,699	Ae-7	
Sandman Sand & Stone, Inc. 8840 Geiser Rd. P.O. Box 938 Holland, OH 43528 419-875-1666 Robert Parker, pres.	Archbold-Whitehouse Pit (556)	Lucas	sand & gravel			Ls-MH	IM-1144
Sands Hill Coal Co., Inc. P.O. Box 470 Wellston, OH 45692 614-384-4211 Bonny A. Huffman, pres.	Sands Hill Strip #4 (158)	Jackson	limestone	421,659	421,659	Jkn-SH	IM-1068

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Sant Sand & Gravel, Inc. P.O. Box 750 Mt. Vernon, OH 43050 614-397-0000 John Ellis, pres.	Sant Sand & Gravel, Inc. (163)	Knox	sand & gravel	183,979	236,745	Kx-3	IM-300
Michael B. Sayers P.O. Box 515 Put-in-Bay, OH 43456-0515 614-666-7652 Michael B. Sayers, owner	Sayers Pit (516)	Delaware	sand & gravel			Del-S	IM-1118
Guy Schieve P.O. Box 83 Birmingham, OH 44816 216-965-8792 Guy Schieve, owner	Schieve Pit (191)	Lorain	sand & gravel	5,850	5,850	Ln-12	IM-731
E. H. Schilling & Sons, Inc. 964 Private Dr. Ironton, OH 45638 614-532-8463 Earl P. Schilling, pres.	E. H. Schilling & Sons, Inc. (305)	Scioto	sand & gravel			So-78	
Schloss Materials Co. 13700 McCracken Rd. Cleveland, OH 44125 216-587-4900 Carl W. Schloss, pres.	Schloss Materials Co. (274) Schloss Materials Co. (569)	Portage Portage	sand & gravel sand & gravel	97,137	97,137	Pe-60 Pe-SM	IM-78 IM-499
Scioto Sand & Gravel P.O. Box 31 Marion, OH 43301-0031 614-494-2177 Gerald E. Fleming, pres.	Scioto Sand & Gravel (197)	Marion	sand & gravel	12,840	12,840	Mn-16	IM-171
Scioto Valley Resources P.O. Box 760 Lucasville, OH 45648 937-364-2311 John B. Patton, pres.	Scioto Valley Resources (395)	Scioto	sand & gravel	196,099	217,214	So-100	IM-950
Mark E. Scott P.O. Box 6112 Chillicothe, OH 45601 614-772-4990 Mark E. Scott, owner	Scott Pit (575)	Ross	sand & gravel	40,000	0	Rs-P	IM-122
Seaway Sand & Stone, Inc. 2190 Whitehouse-Spencer Rd. Swanton, OH 43558 419-865-5751 Mack S. Moon, pres.	Seaway Sand & Stone, Inc. (188) (195) (156)	Lucas	limestone sand & gravel clay	248,588 178,408 15,848	248,588 178,408 15,848	Ls-13	IM-492
Seville Sand & Gravel, Inc. 8215 Seville Rd. Seville, OH 44273 330-948-1812 George Cross, pres.	Seville Sand & Gravel, Inc. (206)	Medina	sand & gravel	443,687	443,687	Ma-22	IM-425, IM-442, IM-650, IM-651
Shamrock Materials, Inc. 11641 Mosteller Rd. Cincinnati, OH 45241 513-771-0820 James P. Jurgensen, pres.	Shamrock Materials, Inc. (38)	Butler	sand & gravel	635,108	635,108	Br-52	IM-814
Sharon Stone Co. P.O. Box 100 Dexter City, OH 45727 614-783-7100 John P. McCort, pres.	Sharon Stone Co. (167) (197)	Noble	limestone clay	161,389 48	161,389 48	Ne-S	IM-913
R. W. Sidley, Inc. 615 W. Main St. Conneaut, OH 44030 216-352-9343 Robert C. Sidley, pres.	Conneaut Pit (15)	Ashtabula	sand & gravel	113,000	113,000	Asa-15	IM-783

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Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
R. W. Sidley, Inc. 7123 Madison Rd. Thompson, OH 44086 216-298-3232 Robert C. Sidley, pres.	Thompson Pit (18) Hambden Quarry (58) Painesville Pit (166)	Geauga Geauga Lake	sandstone sandstone sand & gravel	165,000 450 21,800	170,000 450 21,800	Gea-1 Gea-S Lke-7	IM-163 IM-161 IM-162
Sidwell Bros., Inc. 4620 Limestone Valley Rd. Zanesville, OH 43701 614-849-2392 Dale R. Sidwell, pres.	Sidwell Quarry (78) Sidwell Bros., Inc. (186)	Muskingum Muskingum	limestone limestone	137,472 710,876	137,472 710,876	Mum-104 Mum-SB	IM-277 IM-1212
Simak Trucking, Inc. 3052 E. Center St. P.O. Box 599 North Kingsville, OH 44068 216-224-1992 Joseph E. Simak, pres.	Simak Trucking, Inc. (413) (166)	Ashtabula	sand & gravel clay	45,204 9,355	45,204 9,355	Asa-18	IM-949
Slankard Dozer Service, Inc. 8241 Fort Laurens Rd. NW Strasburg, OH 44680 330-878-5883 Jerry L. Slankard, pres.	Beach City Pit (54)	Tuscarawas	sandstone	753	2,975	Ts-2032	IM-1141
Sleepy Hollow Sand & Gravel 2699 Johnstown-Alexandria Rd. Alexandria, OH 43001 614-927-6789 Donald Martin, pres.	Sleepy Hollow Pit (658)	Licking	sand & gravel	58,910	61,910	Lg-S	IM-1281
Small's Sand & Gravel, Inc. P.O. Box 617 Gambier, OH 43022 614-427-3677 Michael Small, pres.	Mickley Pit (162) Killduff Rd. (165) Zion Rd. (408)	Knox Knox Knox	sand & gravel sand & gravel sand & gravel	32,784 221,834 275	32,784 221,834 275	Kx-5 Kx-15 Kx-17	IM-884 IM-967 IM-968
Sober Sand & Gravel Co. 2898 Tallmadge Rd. Ravenna, OH 44266 330-325-7088 Waldo A. Sober, pres.	Sober Sand & Gravel Co. (275)	Portage	sand & gravel	637	637	Pe-18	IM-193
Soehnlen Bros. Sand & Gravel, Inc. 10449 Soehnlen Rd. NW Beach City, OH 44608 330-756-2244 Francis L. Soehnlen, pres.	Soehnlen Bros. Sand & Gravel, Inc. (343)	Tuscarawas	sand & gravel	82,462	82,462	Ts-1826	IM-88
Solomon's Mines, Inc. 7732 Salem-Unity Rd. Salem, OH 44460 330-332-4634 Jack Solomon, owner	Solomon's Mines, Inc. #2 (636) (72) (194) Solomon's Mines, Inc. #1 (196) (135)	Columbiana Mahoning 	sand & gravel sandstone clay sand & gravel clay	30,376 21,405 251 66,234 4,312	30,376 21,405 251 66,234 4,312	Ca-S Mg-632 	IM-1258 IM-808
Solon Excavators Sand & Gravel, Inc. 10925 Mantua Center Rd. P.O. Box Q Mantua, OH 44255 330-274-8241 Howard Sargent, pres.	May (623) Alger (276) Woodward (486)	Geauga Portage Portage	sand & gravel sand & gravel sand & gravel	84,283 212,622	84,283 212,622	Gea-43 Pe-36 Pe-SE	IM-1230 IM-90 IM-1096
Soltis Sand & Gravel 19102 Nelson Ledge Rd. Garrettsville, OH 44231 216-548-5813 James W. Soltis, owner	Soltis Sand & Gravel (415) (86)	Geauga	sand & gravel clay	759 319	975 319	Gea-9	IM-132
South Central Sand & Gravel 340 Bailey Chapel Rd. Piketon, OH 45661 614-289-2629 James Nier, pres.	Plant #1 (254)	Pike	sand & gravel	19,750	19,750	Pke-30	IM-786
Southern Ohio Aggregates, Inc. 11641 Mosteller Rd. Cincinnati, OH 43113 513-771-0820 James P. Jurgensen, pres.	Southern Ohio Aggregates, Inc. (460) Southern Ohio Aggregates, Inc. (551) Southern Ohio Aggregates, Inc. (552) Southern Ohio Aggregates, Inc. (284)	Butler Hamilton Hamilton Preble	sand & gravel sand & gravel sand & gravel sand & gravel	2,000 2,000 3,000	2,000 2,000 3,000	Br-S Hmn-S Hmn-SO Pre-7	IM-1053 IM-746 IM-720 IM-306

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Southwestern Portland Cement Co. Eastern Division 506 E. Xenia Rd. P.O. Box 191 Fairborn, OH 45324 800-762-0040 Clarence Comer, pres.	A-Tract (33) Miller-Trollinger (10) Batdorf-Feirstine-Schneider (34) Harner (90) G-Tract (72)	Clark, Greene Greene Greene Greene Montgomery	limestone clay limestone clay limestone	 148,076 695,943 42,636	 148,076 724,150 42,636	Ge-1 Ge-8 Ge-9 Ge-44 My-58	IM-393 IM-364 IM-364 IM-330
Speer Brothers, Inc. 3812 Old Railroad Rd. Sandusky, OH 44870 419-626-5291 David Speer, pres.	101 Location (89)	Erie	clay			Ee-32	IM-1077
Sphagnum Moss Peat Farm 9904 State Route 736 Plain City, OH 43064 937-597-7251 Mike Poling, owner	Sphagnum Moss Peat Farm (2)	Champaign	peat	5,500	7,000	Cpn-9	
Spring Creek Corp. 4723 Hardin-Wapak Rd. Sidney, OH 45365 937-492-4186 Nelson E. Barhorst, pres.	Pence Deposit (314) River Quarry (112) Jones Deposit (315) "H" Mine (494)	Shelby Shelby Shelby Shelby	sand & gravel limestone sand & gravel sand & gravel	354,544 322,219 100,000	354,544 322,219 100,000	Shy-11 Shy-15 Shy-18 Shy-SC	IM-743 IM-387 IM-388 IM-1018
Spring Industries, Inc. P.O. Box 507 New Philadelphia, OH 44663 216-339-3585 Glenn Straub, pres.	Bolivar Pit (582) Midvale Pit (344)	Stark Tuscarawas	sand & gravel sand & gravel	 65,157	 0	Sk-SI Ts-1771	IM-588 IM-77
Spring Run Gravel P.O. Box 466 Killbuck, OH 44637 330-276-2444 Jeff Chaney, owner	Spring Run Gravel (416) (111)	Holmes	sand & gravel shale	15,490	15,490	Hs-96	IM-997
Spring Valley Investments, Inc. 2800 N. Turkeyfoot Rd. Akron, OH 44319 330-644-2285 Douglas K. Rennick, pres.	Spring Valley Investments, Inc. (335)	Summit	sand & gravel			St-26	IM-803
City of Springfield 201 Eagle City Rd. Springfield, OH 45502 937-390-7210 Robert Chaffin, Jr., water plant supt.	City of Springfield (437)	Clark	sand & gravel			Ck-7	IM-449
Springfield Sand & Gravel Co. 4301 S. Charleston Pike Springfield, OH 45502 937-325-7386 Mark Shelly, pres.	Springfield Sand & Gravel Co. (58)	Clark	sand & gravel	815,536	815,536	Ck-25	IM-358
State Line Resources, Inc. Route 154 Negley, OH 44441 216-921-1950 Charles H. Muse, Jr., pres.	State Line Resources, Inc. (4) (4)	Columbiana	clay shale	49,071	49,071	Ca-505	IM-13, IM-936
Stewart & Reichman, Inc. 1866 State Rte. 416 SE Gnadenhutten, OH 44629 614-922-0050 Timothy G. Brown, pres.	Stewart & Reichman, Inc. (346)	Tuscarawas	sand & gravel	21,713	21,713	Ts-111	IM-55
Stillwater Sand & Gravel, Inc. 1558 County Rd. 105 Belle Center, OH 43310 937-464-3833 Mark Shelly, pres.	Stillwater Sand & Gravel, Inc. (447)	Miami	sand & gravel			Mi-504	IM-1032
Stocker Sand & Gravel Co. P.O. Box 176 Gnadenhutten, OH 44629 614-254-4635 Jeffrey Stocker, pres.	Stocker Sand & Gravel Co. (347) Stocker Sand & Gravel Co. (348)	Tuscarawas Tuscarawas	sand & gravel sand & gravel	397,146 762,480	397,146 762,480	Ts-69 Ts-125	IM-51 IM-50

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Stoneco, Inc. 1345 Ford St. P.O. Box 29A Maumee, OH 43537 419-893-8731 John Bearss, pres.	Maumee Quarry (54)	Lucas	limestone	1,176,734	1,064,199	Ls-2	IM-503
	Celina Quarry (62)	Mercer	limestone	503,000	505,000	Mr-1	IM-592
	Rocky Ridge (83)	Ottawa	limestone	370,810	361,600	Oa-14	IM-320
	Auglaize Quarry (88)	Paulding	limestone	745,970	855,000	Pg-2	IM-481
	Scott Quarry (121)	Van Wert	limestone	372,000	362,000	Vt-3	IM-495
	South Montpelier (375)	Williams	sand & gravel	374,545	350,000	Ws-6	IM-497
	North Montpelier (376)	Williams	sand & gravel			Ws-9	IM-498
	Takacs Quarry (506)	Williams	sand & gravel			Ws-T	IM-1022
	Lime City Quarry (131)	Wood	limestone	818,772	961,769	Wd-6	IM-480
	Portage Quarry (132)	Wood	limestone	279,411	344,825	Wd-11	IM-475
Stone Creek Brick Co. P.O. Box 116 Stone Creek, OH 43840 330-339-5511 A. C. Marsh, Jr., pres.	Stone Creek Clay Mine (67)	Tuscarawas	clay	32,725	32,725	Ts-1557	IM-52
	Stone Creek Shale Pit (67)	Tuscarawas	shale	6,280	6,280	Ts-1558	IM-52
Suever Stone Co., Inc. Bloomlock Rd. P.O. Box 10 Delphos, OH 45833 419-692-9796 Neal Lause, pres.	Suever Stone Co., Inc. (7)	Allen	limestone	99,435	105,000	An-4	IM-491
	Delphos Quarry (123)	Van Wert	limestone	166,038	175,686	Vt-1	IM-500
Sugarcreek Clay & Limestone, Inc. P.O. Box 402 Sugarcreek, OH 44681 330-852-4440 Daniel O. Miller, pres.	Newcomerstown Plant (72)	Coshocton	sand & gravel			Cn-624	IM-243
	Winfield (190)	Tuscarawas	limestone	83	83	Ts-2047	IM-1224
	(175)		clay	13,761	13,761		
Summitville Tiles, Inc. P.O. Box 173 Summitville, OH 43962 330-223-1511 David Johnson, pres.	Summitville Tiles, Inc. (5)	Columbiana	shale	38,171	0	Ca-205	IM-74
	Summitville Tiles, Inc. (127)	Columbiana	shale			Ca-989	IM-1110
Sunrise Sand & Gravel 4872 Meade Hollow Rd. Orwell, OH 44076 216-474-0614 Kenneth, Robert, & Richard McElroy, partners	Sunrise Sand & Gravel (617)	Ashtabula	sand & gravel			Asa-21	IM-1239
Sunshine Sand Co. 8861 State Rte. 43 Kent, OH 44240 216-587-2700 Dorothy Strohm, pres.	Sunshine Sand Co. (528)	Portage	sand & gravel	9,832	9,832	Pe-SSC	IM-318
Swingle Drilling, Inc. 713 Keystone St. Crooksville, OH 43731 614-982-1302 James R. Swingle, pres.	T. G. Industries, Inc. (138)	Perry	clay			Py-S1	IM-1183
T. K. Stone Co., Inc. 2050 E. Kingscreek Rd. Urbana, OH 43078 937-653-8201 Jerry Trout, pres.	T. K. Stone Co., Inc. (619)	Champaign	sand & gravel			Cpn-25	IM-1227
T. T. & K. Construction, Inc. 32 State Route 239 Portsmouth, OH 45663 614-858-6661 Patricia Picklesimer, pres.	T. T. & K. Construction, Inc. (630)	Scioto	sand & gravel			So-102	IM-1250
Tackett Builders 906 Charleston Pike Chillicothe, OH 45601 614-772-5431 Carmel G. Tackett, owner	Tackett Pit (606)	Ross	sand & gravel	1,300	1,300	Rs-T	IM-1189
	(150)		shale				
Teague Gravel Co., Inc. 10924 Kinsman Rd. Newbury, OH 44065 216-564-5671 Donald Teague, pres.	Teague Gravel Pit (109)	Geauga	sand & gravel	80,142	80,142	Gea-35	IM-321

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS — Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Thiel Construction Co. P.O. Box 225 Blakeslee, OH 43505 419-272-2712 Lee Thiel, pres.	Thiel Construction Co. (633)	Williams	sand & gravel	8,540	8,540	Ws-21	IM-1225
Don Thompson Excavating, Inc. 1471 W. Paintersville Rd. Spring Valley, OH 45370 937-862-7911 Todd Thompson, pres.	Don Thompson Excavating, Inc. (546)	Greene	sand & gravel			Ge-46	IM-1149
Tipp Stone Co., Inc. P.O. Box 367 Troy, OH 45373 937-228-8423 T. L. Eidemiller, pres.	Troy (446) Meeker (238)	Miami Montgomery	sand & gravel sand & gravel	30,865 26,602	30,865 26,602	Mi-12 My-61	IM-467 IM-468
Towne Square Products 156 E. Broadway Westerville, OH 43081 614-882-6990 Suzanne Edgar, pres.	Towne Square Products (41)	Noble	shale	1,100	1,100	Ne-66	IM-664
Tri-County Limestone Co. 4664 Hardin-Marion Rd. N Kenton, OH 43326 419-675-7127 Norman Cochran, pres.	Tri-County Limestone Co. (61)	Marion	limestone	205,201	205,201	Mn-1	IM-250
Tri-State Asphalt Products 44 Sixteenth St. Wheeling, WV 26003 614-671-9400 Glenn Straub, pres.	Tri-State Asphalt Products (26)	Belmont	sand & gravel	198,736	186,518	Bt-74	IM-288
Trout Sand & Gravel Co. Rte. 4 Marietta, OH 45750 800-344-4948 Henry C. Trout, Jr., owner	Trout Sand & Gravel Co. (369)	Washington	sand & gravel	45,252	39,843	Wn-510	IM-25
Tuffco Sand & Gravel, Inc. P.O. Box 399 Marysville, OH 43040 614-873-3978 Charles Lewis, pres.	Tuffco Sand & Gravel, Inc. (474)	Madison	sand & gravel	134,968	134,968	Mdn-11	IM-1063
U.S. Silica Co. P.O. Box 146 Dundee, OH 44624 330-852-2012 Larry Nichols, plant supt.	Dundee Plant (42)	Tuscarawas	sandstone	16,724	17,177	Ts-1660	IM-68
Union Aggregates Co. 8328 Watkins Rd. P.O. Box 178 Ostrander, OH 43061 614-666-2013 Mark Shelly, pres.	Prospect Sand & Gravel Plant (200) Union Limestone Plant (120)	Marion Union	sand & gravel limestone	78,399 1,056,726	78,399 1,056,726	Mn-10 Un-2	IM-196 IM-236
United Builders Distributing Corp. 24371 State Rte. 30 E. Rochester, OH 44625 330-894-2394 Roger McDaniel, pres.	United Builders Distributing Corp. (464)	Columbiana	sand & gravel			Ca-U	IM-999
Valley Clay Mining Co. 26 N. Shawnee Ave. Zanesville, OH 43701 614-452-3633 Tim Kimpel, mine foreman	Kimpel #2 (122) Tague Mine (173)	Muskingum Perry	clay clay	15,910 1,127	12,600 1,100	Mum-904 Py-V	IM-1127 IM-1245
Valley Gravel Co. 4974 Shreve Rd. Wooster, OH 44691 330-264-1745 Ira & Grace Eikleberry, partners	Valley Gravel Co. (632)	Wayne	sand & gravel			We-27	IM-1242

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Valley Materials Co. 4947 U.S. Rte. 23 South P.O. Box 400 Piketon, OH 45661 614-289-4551 Ralph McFann, pres.	Valley Materials Co. (252) (99)	Pike	sand & gravel clay	68,501 6,717	85,602 6,717	Pke-26	IM-142
Valley Sand & Gravel, Inc. 11840 Darby Creek Rd. Orient, OH 43146 614-877-4730 Dorothy H. Combs, owner	Valley Sand & Gravel, Inc. (627)	Pickaway	sand & gravel	17,548	17,548	Pky-C	IM-1223
John Van Horn Trucking 6945 Private Rd. 480 Loudonville, OH 44842 419-994-4222 John Van Horn, owner	John Van Horn Trucking (643) (191)	Holmes	sand & gravel shale	763	763	Hs-VH	IM-1263
Van Wey Sand & Gravel, Inc. 6824 Mt. Vernon Rd. NE Newark, OH 43055 614-745-5965 Rock Van Wey, pres.	Van Wey Sand & Gravel, Inc. (179)	Licking	sand & gravel	1,127,712	1,220,000	Lg-10	IM-217
Ralph C. Wagner & Sons 7317 Brinker St. Navarre, OH 44662 216-879-2516 Michael Wagner, owner	Wagner & Sons (579)	Stark	sand & gravel			Sk-W	IM-867
Wagner Quarries Co. 4203 Milan Rd. Sandusky, OH 44870 419-625-8141 Stephen C. Lochner, pres.	Wagner Quarries Co. (26)	Erie	limestone	1,805,258	1,948,979	Ee-1	IM-310
Wallace Road Sand & Gravel P.O. Box 74 Petersburg, OH 44454 330-542-9397 David Sugar, pres.	Wallace Road Sand & Gravel (475)	Mahoning	sand & gravel	1,200	1,200	Mg-630	IM-1091
Waller Bros. Stone Co. P.O. Box 157 McDermott, OH 45652 614-259-2356 F. L. Waller, pres.	Inskeep Quarry (36) Crabtree Quarry (37) Miller Quarry (38)	Scioto Scioto Scioto	sandstone sandstone sandstone	1,177 11,318	1,177 11,318	So-48 So-76 So-82	IM-140 IM-141 IM-158
Carl Walter 11098 Bower Rd. Minerva, OH 44657 330-894-2315 Carl Walter, owner	Walter PIt (653)	Columbiana	sand & gravel	4,000	4,000	Ca-W	IM-1279
Walter's Gravel 11302 National Rd. SE Thornville, OH 43076 614-323-0783 Viva W. Fenice, owner	Walter's Gravel (180)	Licking	sand & gravel			Lg-15	
Ward Materials, Inc. 385 Oak St. R.R. 2 Leipsic, OH 45856 419-943-2450 Arnold W. Rosebrock, pres.	Ward Materials, Inc. (2)	Allen	sand & gravel	55,185	65,285	An-15	IM-721
Don Wartko Construction, Inc. 975 Tallmadge Rd. Kent, OH 44240 330-673-5252 Donald Wartko, pres.	Don Wartko Construction, Inc. (483)	Portage	sand & gravel			Pe-92	IM-522
Waterloo Coal Co., Inc. P.O. Box 626 Jackson, OH 45640 614-682-7787 Phil A. Bowman, v. pres.	Bowman Strip (47) (23)	Jackson	limestone clay	284,213 1,012	284,213 1,012	Jkn-367	D-0594, D-0968 D-1083

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Watson Gravel, Inc. 2728 Hamilton-Cleves Rd. P.O. Box 277 Ross, OH 45061 513-863-0070 Ronald E. Watson, pres.	Watson Pit (44) Spring Valley (441) Harrison Pit (142) Mason Pit (363)	Butler Greene Hamilton Warren	sand & gravel sand & gravel sand & gravel sand & gravel	 699,533 714,124 300	 699,533 714,124 300	Br-47 Ge-38 Hmn-60 Wan-10	IM-111 IM-333 IM-761 IM-465
Weber Sand & Gravel, Inc. Rte. 2 Box 3 Bryan, OH 43506 419-636-7920 Thomas G. Weber, pres.	Weber Sand & Gravel, Inc. (377)	Williams	sand & gravel	206,252	206,252	Ws-11	IM-509, IM-661
Weidle Sand & Gravel, Inc. P.O. Box 247 Germantown, OH 45327 937-855-2228 Ronal L. Weidle, Sr., pres.	Weidle Sand & Gravel, Inc. (41) Weidle Sand & Gravel, Inc. (239) (10) Weidle Sand & Gravel, Inc. (158)	Butler Montgomery Montgomery	sand & gravel sand & gravel peat clay	 259,590 127,032	 259,590 127,032	Br-6 My-41 My-W	IM-177 IM-360 IM-1207
Welch Sand & Gravel, Inc. 10217 Columbia St. Harrison, OH 45030-9751 513-353-3220 Charles H. Welch, pres.	Schlichter Pit (45) Fernald Pit (143) East Miami Pit (144)	Butler Hamilton Hamilton	sand & gravel sand & gravel sand & gravel	152,987 536,235 276,017	152,987 536,235 276,017	Br-38 Hmn-42 Hmn-48	IM-218 IM-823 IM-220
White Rock Quarry, L.P. P.O. Box 119 Clay Center, OH 43408-0119 419-855-8388 Fred Jensen, plant mgr.	White Rock Quarry (82)	Ottawa	limestone	1,088,737	1,316,043	Oa-6	IM-296
Frank Widmor Coal Co., Inc. P.O. Box 176 Blaine, OH 43909 614-635-4811 Jay Van Dyne, pres.	Bellaire Stone (152) (56) (105) (105)	Belmont	limestone sandstone clay shale	370,168 2,017	370,168 2,017	Bt-1190	IM-1089
Mark Williams Blacktop Co., Inc. Rte. 4 Box 34 Marietta, OH 45750 614-373-2457 Mark Williams, owner	Williams Pit #2 (504) Williams Pit #1 (534)	Washington Washington	sand & gravel sand & gravel	25,696	25,696	Wn-1007 Wn-1009	IM-1042 IM-525
Willowbrook 39130 Brookfield St. Lisbon, OH 44432 330-424-7493 Ray Perrino, owner	Willowbrook (538)	Columbiana	sand & gravel	24,234	24,234	Ca-993	IM-1180
Gene T. Wilson P.O. Box 46 Mt. Sterling, OH 43143 614-869-4406 Gene Wilson, owner	Wilson Pit (565)	Pickaway	sand & gravel			Pky-W	IM-1176
Dennis Winzeler 03985 12/C Bryan, OH 43506 419-636-4285 Dennis & Polly Winzeler, owners	Winzeler Pit (378)	Williams	sand & gravel			Ws-14	IM-614
Wise Gravel 8535 W. Klinger Rd. Covington, OH 45318 937-473-3246 John A. Wise, owner	Wise Gravel (221)	Miami	sand & gravel	192	192	Mi-9	IM-408
Wyandot Dolomite, Inc. P.O. Box 126 Carey, OH 43316-0126 419-396-7641 David J. Wolfe, pres.	Wyandot Dolomite, Inc. (135)	Wyandot	limestone	1,663,685	1,959,902	Wt-8	IM-273
Wysong Gravel Co. P.O. Box 5 West Alexandria, OH 45381 937-962-2559 John & Carroll Wysong, owners	Camden Plant (285) West Alexandria Plant (286)	Preble Preble	sand & gravel sand & gravel	194,015 109,350	194,015 109,350	Pre-4 Pre-6	IM-477 IM-478

1996 OHIO ALPHABETICAL DIRECTORY OF INDUSTRIAL-MINERAL MINE OPERATORS – Continued

Name, address, telephone number, and president/owner/manager of company	Name of mine (and map location number)	County	Commodity	1996 sales (tons)	1996 production (tons)	State mine number	Mining and reclamation permit number
Wysong Stone Co. 5897 State Rte. 503 N P.O. Box 159 Lewisburg, OH 45338 937-962-2559 Gerald E. Wysong, pres.	Wysong Stone Co. (95)	Preble	limestone	87,967	87,967	Pre-5	IM-447
X L Sand & Gravel P.O. Box 157 Negley, OH 44441 330-426-9876 Robert Lansberry, pres.	X L Sand & Gravel (68)	Columbiana	sand & gravel			Ca-881	IM-611
Xenia Sand, Gravel, & Asphalt Co. 588 Dayton-Xenia Rd. Xenia, OH 45385 937-372-2978 David A. Thompson, owner	Xenia Sand, Gravel, & Asphalt Co. (117)	Greene	sand & gravel	400	400	Ge-10	IM-518
Young's Sand & Gravel Co. 689 State Rte. 39 W P.O. Box 117 Loudonville, OH 44842 419-994-3040 Milton Young, pres.	Sprang (8) Young's Sand & Gravel Co. (412) Young's Sand & Gravel Co. (616)	Ashland Ashland Ashland	sand & gravel sand & gravel sand & gravel	72,522 129,934 99,717	72,522 129,934 99,717	Ald-7 Ald-15 Ald-Y	IM-392 IM-944 IM-1216
Zerger's Quarry 100 N. Sycamore St. Woodsfield, OH 43793 614-472-1675 Herman Zerger, owner	Zerger's Quarry (80)	Noble	limestone			Ne-86	IM-70
Zoar Mining Co. P.O. Box 667 Zoar, OH 44697 330-223-1511 David W. Johnson, pres.	Zoar Mining Co. (71) (71)	Tuscarawas	clay shale	2,806	2,806	Ts-540	IM-28
Zollinger Sand & Gravel Co. 11899 Easton Rd. Rittman, OH 44270 330-855-2464 Carl Zollinger, pres.	Zollinger Sand & Gravel Co. (374) (193)	Wayne	sand & gravel shale	66,362 10,000	66,362 10,000	We-15	IM-398

1996 LIMESTONE/DOLOMITE COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
American Aggregates Corp.	11	9,229,119	8,688,245
Ayers Limestone Quarry, Inc.	1	129,554	129,554
Barrett Paving Materials, Inc.	2	763,000	772,000
Belden Brick Co.	1	5,609	5,609
Belville Mining Co., Inc.	1	42,955	42,955
Bluffton Stone Co.	1	410,097	414,994
Blum Mining Co.	1	27,136	27,136
Central Ohio Coal Co.	1	82,621	82,621
Chesterhill Stone Co.	1	674,699	728,935
Christman Quarry	1	93,806	93,806
Con-Ag, Inc.	1	191,323	250,740
Custar Stone Co.	1	502,040	449,389
Davon, Inc.	3	3,179,226	3,144,079
C.E. Duff & Sons, Inc.	2	348,856	348,856
E.M.A.I. Corp., dba ESSROC Materials, Inc.	2	1,977,082	1,977,082
East Fairfield Coal Co.	1	82,707	82,707
R. A. Eberts Co., Inc.	1	273,681	273,681
Erie Blacktop, Inc.	1	58,375	58,375
Fox Stone Products, Inc.	1	6,000	6,000
The France Stone Co.	5	3,139,622	3,322,417
GenLime Group, L.P.	1	987,100	360,097
Gottron Bros. Co.	1	107,660	73,800
J. M. Hamilton & Sons Co., Inc.	1	101,624	101,624
Hardin Quarry Co., Inc.	1	216,052	216,052
Holmes Limestone Co.	1	111,646	111,646
Honey Creek Stone Co.	1	248,852	265,000
K.C.C.I.	1	55,206	55,206
Kellstone, Inc.	1	623,428	623,428
Kimble Clay & Limestone Co.	1	82,185	82,185
King Limestone, Inc.	1	293,778	293,778
King Quarries, Inc.	2	1,225	1,225
Lafarge Corp.	2	4,559,560	4,359,560
Latham Limestone, Inc.	1	373,641	380,000
MacRitchie Materials, Inc.	1	417,418	417,418
Maple Grove Stone Co.	1	148,554	148,554
Marshall Quarry, Inc.	1	11,028	11,028
Martin Marietta Aggregates	1	714,305	574,275
Martin Marietta Magnesia Specialties, Inc.	1	2,562,402	2,562,402
Maxville Quarries, Inc.	2	199,765	208,223
McCarthy Stone Quarry	1	214,604	214,604
Melvin Stone Co.	3	1,928,585	1,928,585
Miami River Stone Co.	1	584,404	584,404
Morrow Gravel Co.	1	128,656	128,656
National Lime & Stone Co.	7	11,028,763	10,760,894
North Shore Stone Quarries, Inc.	1	3,322	3,322
Northwood Stone & Asphalt Co.	2	531,479	720,324
Ohio Asphaltic Limestone Corp.	1	442,986	442,000
Olen Corp.	1	467,000	490,000
Penry Stone Co.	1	419,550	419,550
Piqua Materials, Inc.	1	597,897	503,169
Pleasant Valley Limestone	1	87,512	87,512
C. F. Poeppelman, Inc.	1	415,097	415,097
Precision Aggregate,Inc.	1	82,645	82,645
Putnam Stone Co.	1	291,163	309,038
Quality Stone Co.	1	678,192	678,192
Redland Ohio, Inc.	2	1,376,684	1,567,581
Ridge Township Quarry	1	63,491	63,491
Rogers Group, Inc., dba Sandusky Crushed Stone Co.	1	3,146,380	3,146,380
Jim Romig Excavating	1	1,860	1,860
Rubel Quarry, Inc.	1	9,628	9,628
Rumpke Mountain Mining Co.	1	50,764	50,764
Salt Creek Materials, Inc.	1	12,634	12,684
Sands Hill Coal Co., Inc.	1	421,659	421,659
Seaway Sand & Stone, Inc.	1	248,588	248,588
Sharon Stone Co.	1	161,389	161,389
Sidwell Bros., Inc.	2	848,348	848,348
Southwestern Portland Cement Co.	2	738,579	766,786
Spring Creek Corp.	1	322,219	322,219
Stoneco, Inc.	7	4,266,697	4,454,393
Suever Stone Co., Inc.	2	265,473	280,686
Sugarcreek Clay & Limestone, Inc.	1	83	83
Tri-County Limestone Co.	1	205,201	205,201
Union Aggregates Co.	1	1,056,726	1,056,726
Wagner Quarries Co.	1	1,805,258	1,948,979
Waterloo Coal Co., Inc.	1	284,213	284,213
White Rock Quarry, L.P.	1	1,088,737	1,316,043
Frank Widmor Coal Co., Inc.	1	370,168	370,168
Wyandot Dolomite, Inc.	1	1,663,685	1,959,902
Wysong Stone Co.	1	87,967	87,967
TOTAL: 79 companies	120	69,431,223	69,098,412

1996 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Cn-A).

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Adams	Davon, Inc.	Plum Run	Meigs	Peebles, Greenfield, & Tymochtee Dolomites (Silurian)	crushed stone — road construction/resurfacing	Ads-1
Allen	Bluffton Stone Co.	Bluffton Stone Co.	Richland	Tymochtee Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/resurfacing, railroad ballast, driveways, sewers; dimension stone; aglime	An-1
	National Lime & Stone Co.	Lima Plant	Bath	Silurian	crushed stone — riprap, commercial building, railroad ballast	An-3
	Suever Stone Co., Inc.	Suever Stone Co., Inc.	Spencer	Tymochtee Dolomite (Silurian)	crushed stone — asphaltic concrete, road construction/resurfacing, commercial building; aglime	An-4
Athens	R. A. Eberts Co., Inc.	Diamond Stone	Lee		crushed stone — road construction/resurfacing	As-533
Auglaize	Con-Ag, Inc.	Con-Ag, Inc.	Noble	Cedarville Dolomite (Silurian)	crushed stone — riprap, asphaltic concrete, road construction/resurfacing; aglime	Ae-31
	National Lime & Stone Co.	Buckland Plant	Moulton	Silurian	crushed stone — riprap, commercial building, railroad ballast; aglime	Ae-10
Belmont	Ayers Limestone Quarry, Inc.	Ayers Limestone Quarry, Inc.	Pease	Permian	crushed stone — riprap, road construction/resurfacing	Bt-716
	Frank Widmor Coal Co., Inc.	Bellaire Stone	Pultney	Fishpot limestone (Pennsylvanian)	crushed stone — riprap, commercial building	Bt-1190
Brown	Davon, Inc.	Eagle Crushed Stone	Eagle	Brassfield Limestone (Silurian)	crushed stone — road construction/resurfacing	Bn-EC
Butler	Martin Marietta Aggregates	Ross	Ross		crushed stone — road construction/resurfacing	Br-29[1]
Clinton	Melvin Stone Co.	Melvin	Richland	Guelph Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/resurfacing, commercial building; aglime	Cln-1
Coshocton	Jim Romig Excavating	Wilkins Pit	White Eyes		crushed stone — riprap	Cn-A
Crawford	National Lime & Stone Co.	Bucyrus Plant	Holmes	Devonian	crushed stone — riprap, flux stone, commercial building, railroad ballast, extenders/fillers; aglime	Cd-1
Darke	American Aggregates Corp.	Fort Jefferson #424	Butler	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	Dke-1
Delaware	American Aggregates Corp.	Shawnee # 225	Concord	Columbus & Delaware Limestones (Devonian)	crushed stone — road construction/resurfacing	Del-4
		Delaware Stone #227	Scioto	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Del-3
	National Lime & Stone Co.	Delaware Plant	Scioto	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, commercial building, railroad ballast; aglime	Del-5
	Penry Stone Co.	Radnor Plant	Radnor	Columbus & Delaware Limestones (Devonian)	crushed stone — commercial building	Del-2
Erie	Erie Blacktop, Inc.	Erie Blacktop Quarry	Margaretta		crushed stone — asphaltic concrete	Ee-27
	Kellstone, Inc.	Kellstone, Inc.	Kelleys Island	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Ee-K
	Rogers Group, Inc. (dba Sandusky Crushed Stone Co.)	Parkertown Quarry	Groton	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/resurfacing, commercial building, railroad ballast; aglime	Ee-11
	Wagner Quarries Co.	Wagner Quarries Co.	Perkins	upper Columbus & Delaware Limestones (Devonian)	crushed stone — road construction/resurfacing	Ee-1
Fayette	American Aggregates Corp.	Blue Rock Limestone #427	Perry	Tymochtee Dolomite (Silurian)	crushed stone — road construction/resurfacing	Fe-2

[1]Sales only, production occurs at another location.

1996 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Fayette (cont.)	Melvin Stone Co.	Fayette	Green	Tymochtee Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/resurfacing, commercial building; aglime	Fe-1
Franklin	American Aggregates Corp.	Columbus Limestone #221	Franklin, Jackson, Marion	Columbus Limestone (Devonian)	crushed stone — road construction/resurfacing	Fn-53
		Marble Cliff #224	Norwich	Columbus & Delaware Limestones (Devonian)	crushed stone — road construction/resurfacing	Fn-2
	Olen Corp.	Hilliard Plant #1	Brown	Salina dolomite (Silurian)	crushed stone — road construction/resurfacing, commercial building	Fn-43
Greene	American Aggregates Corp.	Cedarville Limestone #425	Cedarville	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	Ge-17
		Fairborn Limestone #431	Sugar Creek	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	Ge-25
	Southwestern Portland Cement Co.	Batdorf-Feirstine-Schneider	Bath	upper Brassfield (Silurian)	stone for portland cement manufacture	Ge-9
Guernsey	King Limestone, Inc.	King Limestone, Inc.	Spencer	Fishpot limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Gy-309[2]
Hamilton	Martin Marietta Aggregates	Miamitown	Crosby, Whitewater		crushed stone — road construction/resurfacing	Hmn-D[3]
		Camp Dennison	Symmes		crushed stone — road construction/resurfacing	Hmn-5[3]
	Rumpke Mountain Mining Co.	Rumpke Mountain Mining Co.	Colerain		crushed stone — general sales, captive use	Hmn-72
Hancock	National Lime & Stone Co.	Findlay Plant	Liberty	Niagaran dolomite (Silurian)	crushed stone — riprap, commercial building, railroad ballast; aglime	Hk-7
Hardin	C.E. Duff & Son, Inc.	Forest Quarry	Jackson	Niagaran dolomite (Silurian)	crushed stone — riprap, portland cement concrete, road construction/resurfacing, commercial building	Hdn-S
	Hardin Quarry Co., Inc.	Hardin Quarry Co., Inc.	Pleasant	Tymochtee Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, road construction/resurfacing, commercial building, extenders/fillers; aglime	Hdn-2
Harrison	K.C.C.I.	Apex	German		crushed stone — road construction/resurfacing	Jfn-K[4]
Highland	Davon, Inc.	Highland Stone	Hamer	Brassfield & Dayton Limestones (Silurian)	crushed stone — road construction/resurfacing	Hd-2
	Marshall Quarry, Inc.	Marshall Quarry, Inc.	Marshall		crushed stone — road construction/resurfacing	Hd-4
	Martin Marietta Aggregates	Lynchburg	Union		crushed stone — road construction/resurfacing	Hd-D
	Ohio Asphaltic Limestone Corp.	Ohio Asphaltic Limestone Corp.	Union		crushed stone — riprap, asphaltic concrete; aglime	Hd-3
Holmes	Holmes Limestone Co.	241 Plant	Hardy	Putnam Hill limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Hs-67
Jackson	Sands Hill Coal Co., Inc.	Sands Hill Strip #4	Milton		crushed stone — road construction/resurfacing; aglime	Jkn-SH
	Waterloo Coal Co., Inc.	Bowman Strip	Bloomfield, Madison	Vanport limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Jkn-367
Jefferson	K.C.C.I.	Apex	Springfield		crushed stone — road construction/resurfacing	Jfn-K[5]
Lawrence	Belville Mining Co., Inc.	Brady Creek	Washington	Vanport limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Le-B
Logan	American Aggregates Corp.	East Liberty #226	Perry		crushed stone — road construction/resurfacing	Lgn-1
	C. E. Duff & Son, Inc.	C. E. Duff & Son, Inc.	Richland		crushed stone — riprap, portland cement concrete, road construction/resurfacing, commercial building	Lgn-15

	Northwood Stone & Asphalt Co.	Northwood Stone & Asphalt Co.	Richland	Tymochtee Dolomite (Silurian)	crushed stone — riprap, asphaltic concrete, road construction/resurfacing	Lgn-2
Lucas	Barrett Paving Materials, Inc.	Sylvania Quarry	Sylvania		crushed stone — road construction/resurfacing	Ls-12
	The France Stone Co.	Sylvania	Sylvania	Detroit River Group (Devonian)	crushed stone — road construction/resurfacing	Ls-3
		Waterville	Waterville	Tymochtee Dolomite (Silurian)	crushed stone — road construction/resurfacing	Ls-1
	Seaway Sand & Stone, Inc.	Seaway Sand & Stone, Inc.	Swanton		crushed stone — riprap, commercial building	Ls-13
	Stoneco, Inc.	Maumee Quarry	Waynesfield		crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building, aglime	Ls-2
Mahoning	Blum Mining Co.	Blum Mining Co.	Springfield	Vanport limestone (Pennsylvanian)	crushed stone — other	Mg-629
	East Fairfield Coal Co.	Withers-Petersburg	Springfield	Vanport limestone (Pennsylvanian)	crushed stone — other	Mg-631
	E.M.A.I. Corp. (dba ESSROC Materials, Inc.)	Bessemer Pit	Poland	Vanport limestone (Pennsylvanian)	stone for portland cement manufacture	Mg-608
		Carbon Pit	Poland	Vanport limestone (Pennsylvanian)	stone for portland cement manufacture	Mg-EM
	Honey Creek Stone Co.	Honey Creek Stone Co.	Springfield	Vanport limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Mg-54
Marion	J. M. Hamilton & Sons Co., Inc.	J. M. Hamilton & Sons Co., Inc.	Marion		crushed stone — asphaltic concrete, road construction/resurfacing	Mn-2
	National Lime & Stone Co.	Marion Plant	Grand Prairie, Marion	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, commercial building, railroad ballast; aglime	Mn-3
	Tri-County Limestone Co.	Tri-County Limestone Co.	Grand	Niagaran dolomite (Silurian)	crushed stone — riprap, portland cement concrete, road construction/resurfacing, dog/ horse runs; aglime	Mn-1
Mercer	Morrow Gravel Co.	Morrow Gravel Co.	Dublin	Lockport & Guelph Dolomites (Silurian)	crushed stone — road construction/resurfacing	Mr-2
	Stoneco, Inc.	Celina Quarry	Jefferson	Niagaran dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building, aglime	Mr-1
Miami	Barrett Paving Materials, Inc.	Barrett Paving Materials, Inc.	Union		crushed stone — road construction/resurfacing	Mi-BPM
	Piqua Materials, Inc.	Piqua Minerals Division	Springcreek	Brassfield Limestone, Dayton & Laurel Dolomites (Silurian)	crushed stone — riprap, flux stone, road construction/resurfacing, industrial fillers; aglime	Mi-1
	C. F. Poeppelman, Inc.	C. F. Poeppelman, Inc.	Newberry	Cedarville Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing; aglime	Mi-10
Monroe	Christman Quarry	Christman Quarry	Seneca		crushed stone — other	Me-C
	Rubel Quarry, Inc.	Rubel Quarry, Inc.	Seneca		crushed stone — other	Me-509
Montgomery	American Aggregates Corp.	Phillipsburg Limestone #421	Clay	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	My-1
		Huber Heights Limestone #432	Van Buren	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	My-32
	Southwestern Portland Cement Co.	G-Tract	Wayne	Brassfield Limestone (Silurian)	stone for portland cement manufacture	My-58
Morgan	Central Ohio Coal Co.	Horse Run Stone Quarry	Manchester	Benwood limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Mon-600
Muskingum	Chesterhill Stone Co.	East Fultonham	Newton	Maxville Limestone (Mississippian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building, railroad ballast, other; stone for portland cement manufacture; aglime	Mum-106
	King Limestone, Inc.	King Limestone, Inc.	Rich Hill	Fishpot limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Gy-309[6]

[2]See also Muskingum County.
[3]Sales only, production occurs at another location.
[4]See also Jefferson County.
[5]See also Harrison County.
[6]See also Guernsey County.

1996 OHIO DIRECTORY OF LIMESTONE/DOLOMITE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of mine or quarry	Township	Geological unit	Type and principal use	State mine number
Muskingum (cont.)	Pleasant Valley Limestone	Pleasant Valley Limestone	Hopewell	Maxville Limestone (Mississippian)	crushed stone — sales to general public	Mum-907
	Salt Creek Materials, Inc.	Salt Creek Materials, Inc.	Perry		crushed stone — road construction/resurfacing	Mum-269
	Sidwell Bros., Inc.	Sidwell Quarry	Newton	Maxville Limestone (Mississippian)	crushed stone — road construction/resurfacing	Mum-104
		Sidwell Bros., Inc.	Newton	Maxville Limestone (Mississippian)	crushed stone — road construction/resurfacing	Mum-SB
Noble	King Quarries, Inc.	King Quarries, Inc.	Olive		crushed stone — riprap	Ne-K
		King Quarries, Inc.	Olive		crushed stone — riprap	Ne-K1
	Sharon Stone Co.	Sharon Stone Co.	Noble	Fishpot limestone (Pennsylvanian)	crushed stone — riprap, road construction/ resurfacing	Ne-S
Ottawa	Fox Stone Products, Inc.	Fox Stone Products, Inc.	Put-in-Bay		unspecified	Oa-18
	GenLime Group, L.P.	GenLime Group, L.P.	Clay	Niagaran dolomite (Silurian)	crushed stone — road construction/resurfacing; lime (burned stone) — building, chemical and industrial	Oa-1
	Lafarge Corp.	Marblehead	Danbury	Columbus Limestone (Devonian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building	Oa-7
	Stoneco, Inc.	Rocky Ridge	Benton		crushed stone — portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building	Oa-14
	White Rock Quarry, L.P.	White Rock Quarry	Allen	Guelph Dolomite (Silurian)	crushed stone — riprap, flux stone, portland cement concrete, asphaltic concrete, road construction/resurfacing, other	Oa-6
Paulding	The France Stone Co.	Paulding	Crane	Tenmile Creek Dolomite (Devonian)	crushed stone — riprap, road construction/ resurfacing; aglime	Pg-7
	Lafarge Corp.	Paulding Quarry	Crane	Detroit River Group & Dundee Limestone (Devonian)	crushed stone — other; stone for portland cement manufacture	Pg-1
	Stoneco, Inc.	Auglaize Quarry	Auglaize	Detroit River Group & Dundee Limestone (Devonian)	crushed stone — riprap, flux stone, portland cement concrete, asphaltic concrete, road construction/resurfacing, commercial building; aglime	Pg-2
Perry	Maxville Quarries, Inc.	Carpenter	Monday Creek	Maxville Limestone (Mississippian)	crushed stone — road construction/resurfacing	Py-235
		Downhour	Monday Creek		crushed stone	Py-343[7]
Pickaway	Melvin Stone Co.	Williamsport	Perry	Columbus Limestone (Devonian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building	Pky-4
Pike	Latham Limestone, Inc.	Latham Limestone, Inc.	Mifflin	Greenfield Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing; aglime	Pke-13
Preble	Wysong Stone Co.	Wysong Stone Co.	Twin	Brassfield Limestone (Silurian)	crushed stone — riprap, road construction/ resurfacing, fill; dimension stone	Pre-5
Putnam	Putnam Stone Co.	Putnam Stone Co.	Pleasant, Riley	Silurian	crushed stone — riprap, portland cement concrete, road construction/resurfacing	Pm-2
Sandusky	Gottron Bros. Co.	Gottron Bros. Co.	Sandusky	Niagaran dolomite (Silurian)	crushed stone — portland cement concrete, road construction/resurfacing, commercial building, fill	Sy-5
	Martin Marietta Magnesia Specialties, Inc.	Woodville Quarry	Woodville	Guelph Dolomite (Silurian)	crushed stone — road construction/resurfacing; lime (burned stone) — chemical and industrial	Sy-1
	Redland Ohio, Inc.	Woodville Plant	Woodville	Niagaran dolomite (Silurian)	crushed stone — flux stone, road construction/ resurfacing; glass, filler; lime (burned stone) — chemical and industrial	Sy-3[8]

Seneca	The France Stone Co.	Bloomville	Bloom	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, road construction/ resurfacing; aglime	Sa-3
		Flat Rock	Thompson	Columbus & Delaware Limestones (Devonian)	crushed stone — riprap, road construction/ resurfacing; aglime	Sa-1
	Maple Grove Stone Co.	Maple Grove Stone Co.	Liberty		crushed stone — portland cement concrete, asphaltic concrete, road construction/ resurfacing, commerical building	Sa-2
	North Shore Stone Quarries, Inc.	North Shore Stone Quarries, Inc.	Thompson		crushed stone — riprap; dimension stone	Sa-8
Shelby	Miami River Stone Co.	Miami River Stone Co.	Orange	Cedarville Dolomite (Silurian)	crushed stone — road construction/resurfacing	Shy-6
	Spring Creek Corp.	River Quarry	Clinton		crushed stone — commercial building	Shy-15
Tuscarawas	Belden Brick Co.	Moomaw Pit	Sugar Creek	Vanport limestone (Pennsylvanian)	crushed stone — road construction/resurfacing	Ts-1517
	Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Dover	Vanport limestone (Pennsylvanian)	crushed stone — riprap, road construction/ resurfacing	Ts-1818
	Sugarcreek Clay & Limestone, Inc.	Winfield Pit	Dover		crushed stone — unspecified	Ts-2047
Union	Northwood Stone & Asphalt Co.	Rockhold Division	York		crushed stone — riprap, road construction/ resurfacing; aglime	Un-1
	Union Aggregates Co.	Union Limestone Plant	Mill Creek	Columbus Limestone (Devonian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, fill, mason sand; dimension stone; aglime	Un-2
Van Wert	Ridge Township Quarry	Ridge Township Quarry	Ridge	Tymochtee Dolomite (Silurian)	crushed stone — road construction/resurfacing	Vt-7
	Stoneco, Inc.	Scott Quarry	Union		crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building	Vt-3
	Suever Stone Co., Inc.	Delphos Quarry	Washington	Tymochtee Dolomite (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, commercial building	Vt-1
Vinton	Quality Stone Co.	Route 32	Clinton		crushed stone — road construction/resurfacing	Vn-193
Wood	Custar Stone Co.	Custar	Milton		crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing; aglime	Wd-5
	MacRitchie Materials, Inc.	MacRitchie Materials, Inc.	Perry	Lockport & Salina Dolomites (Silurian)	crushed stone — road construction/resurfacing	Wd-1
	Precision Aggregate, Inc.	Precision Aggregate II	Portage		crushed stone — portland cement concrete	Wd-14
	Stoneco, Inc.	Lime City Quarry	Perrysburg		crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building; aglime	Wd-6
		Portage Quarry	Portage	Greenfield & Lockport Dolomites (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building; aglime	Wd-11
Wyandot	McCarthy Stone Quarry	McCarthy Stone Quarry	Pitt	Bass Islands Group (Silurian)	crushed stone — asphaltic concrete, road construction/resurfacing	Wt-3
	National Lime & Stone Co.	Carey Plant	Crawford	Monroe dolomite (Silurian)	crushed stone — riprap, flux stone, commercial building, railroad ballast, extenders/fillers; aglime; lime (burned stone) — chemical and industrial	Wt-1
	Wyandot Dolomite, Inc.	Wyandot Dolomite, Inc.	Crawford	Greenfield & Guelph Dolomites (Silurian)	crushed stone — riprap, portland cement concrete, asphaltic concrete, road construction/ resurfacing, commercial building, railroad ballast, manufacturing sand; aglime	Wt-8

[7]Production only, no sales.
[8]Information for Sy-3 includes information for Sy-4

1996 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)	Company	No. of operations	Sales (tons)	Production (tons)
A-1 All Ohio Sand & Gravel Co.	1	136,373	136,373	Craig Fankhauser	1	3,750	3,750
ATS Enterprises	1	362,980	342,245	Feikert Sand & Gravel, Inc.	2	129,335	129,335
Agg Rok Materials	1	555,618	555,618	Fenner Sand & Gravel, Inc.	1	104,000	104,000
William Albert, Inc.	1	33,041	35,042	Fleming Construction Co., Inc.	1	9,199	9,199
Allgeier & Son, Inc.	1	87,000	87,000	Flesher Sand & Gravel, Inc.	1	23,722	23,722
American Aggregates Corp.	11	8,212,872	7,916,541	Foureman's Sand & Gravel, Inc.	1	75,957	75,957
American Sand & Gravel	2	995,000	995,000	Friendsville Sand, L.P.	1	35,000	35,000
Apache Aggregate & Paving Co.	1	148,301	158,863	Frye Sand & Gravel, Inc.	1	2,172	2,172
Ashcraft Sand & Gravel, Inc.	1	86,361	86,361	John L. Garber Materials, Inc.	1	273,667	276,000
Atlas Towing Co.	1	17,150	0	Al Gasser Excavating, Inc.	1	1,875	1,875
B & L Sand Co.	1	67,000	67,000	Geiger Sand & Gravel	1	49,110	49,110
Baker Sand, Inc.	1	767,458	767,458	Gibson Sand & Gravel Co.	1	312	312
Barrett Paving Materials, Inc.	2	527,833	717,749	Joyce A. Good	1	6,671	0
Beaver Excavating, Inc.	1	2,028	2,028	Goshen Sand & Gravel	1	88,755	93,455
Beck Sand & Gravel, Inc.	1	239,250	239,250	James D. Graham	1	842	842
Paul D. Beery Trucking Co.	1	7,512	260	The Gravel Co.	1	31,000	31,000
Beverly Slag Co.	1	953	953	Geen Oaks Potting Products, Inc.	1	45	45
Big T Mining	1	5,183	5,183	Harrison Sand & Gravel Co.	1	94,886	94,886
Big Walnut Sand & Gravel, Inc.	1	63,395	63,395	Haubeil & Sons Asphalt & Materials, Inc.	1	129,847	129,847
Black Top Contracting, Inc.	1	8,506	0	Haueter Sand & Gravel, Inc.	1	267,310	267,310
E. E. Blair Construction Co.	1	181,411	181,411	Heer Excavating, Inc.	1	23,201	23,201
Bolin & Bartley, Inc.	2	97,255	97,255	Heiser Sand & Gravel Co.	2	62,315	62,315
Gaston Bowling, Inc.	1	2,216	2,216	Paul N. Herdman	1	4,000	4,000
D. H. Bowman & Sons, Inc.	1	39,340	60,908	Hillsdale Sand & Gravel, Inc.	1	4,379	4,379
Boyas Excavating, Inc.	1	8,100	8,100	Hilltop Aggregate, Inc.	1	428,963	428,963
Boyd Gravel Co.	2	722,652	722,652	Hilltop Basic Resources, Inc.	2	1,117,895	1,069,440
Briggs Sand & Gravel, Inc.	1	33,792	33,792	Hocking Valley Concrete, Inc.	1	55,000	70,000
Broadway Sand & Gravel, Inc.	1	98,437	98,437	Hocking Valley Mulch	1	1,750	1,750
Broshear Contractors, Inc.	1	29,588	29,588	William A. Hoffman, Jr.	1	3,435	3,435
Karl Brugmann Sand & Gravel, Inc.	1	59,631	59,631	Hollinger Excavating	1	1,196	1,196
Oscar Brugmann Sand & Gravel, Inc.	2	523,554	576,500	Hugo Sand Co.	1	236,022	236,022
Buckeye Excavating Development, Inc.	1	20,473	20,473	Inland South Aggregates	1	56,656	63,475
James Bunnell, Inc.	3	698,665	698,665	JP Sand & Gravel Co.	1	457,969	457,969
C.I.R., Inc.	1	6,943	6,943	Jarret Sand Co.	1	5,754	5,754
Canton Aggregate	3	855,275	855,275	Jaymar, Inc.	1	112,182	112,182
Joe E. Carter	1	200	200	Jefferson Materials Co.	1	276,910	276,910
Carter & Carter, Inc.	1	802	0	Jimsco, Inc.	1	162	162
Chesterhill Stone Co.	1	247,832	246,451	Johnson Road Sand & Gravel	1	16,000	16,000
Chesterville Sand & Gravel Co., Inc.	1	157,282	157,282	Keener Sand & Clay Co.	1	745	745
Chillicothe Sand & Gravel Co.	1	133,625	275,000	Killbarger Construction, Inc.	1	650	650
Clemson Excavating, Inc.	1	11,154	11,154	Kinsman Sand & Gravel Co.	1	82,752	82,752
M. J. Coates Construction Co.	1	142,450	142,450	Kipp's Gravel Co., Inc.	1	169,763	169,763
Cochran Transportation Services, Inc.	1	27,119	27,119	Kirby's Sand & Gravel, Inc.	1	178,352	178,352
Boone Coleman Construction, Inc.	1	0	6,175	L & I Natural Resources, Inc.	1	119,050	119,050
Bill D. Colwell	1	29,900	29,900	Lafarge Corp.	1	1,139,854	1,096,552
Complete Resources Co.	1	207,746	223,591	Lake Hope Asphalt, Inc.	1	47,328	20,340
Creamens Concrete & Supply	1	3,079	3,079	Lakeside Sand & Gravel Co.	2	246,425	246,425
Crosby Gravel	1	450	450	Lancaster Sand & Gravel Co.	1	907,845	907,845
R. A Cruise Sand & Gravel, Inc.	1	67,918	67,918	Leonard Sand & Gravel	1	0	400
D & K Materials, Inc.	1	21,355	21,355	Lerkis Asphalt Co., Inc. & Subsidiary	1	20,000	20,000
D.G.M., Inc.	1	8,000	1,000	Link Trucking Co.	1	8,999	10,615
Davis Sand & Gravel	1	750	750	Loxley Aggregates, Inc.	1	1,208	1,208
Demmy Construction, Inc.	1	42,449	42,449	Lucky Sand & Gravel Co.	1	122,866	122,866
Demmy Sand & Gravel	1	7,158	7,158	M & J Sand & Gravel, Inc.	1	11,976	11,976
Dingledine Basic Materials, Inc.	1	35,846	35,846	M. C. Trucking Co., Inc.	1	521,000	521,000
Don's Dozer Service, Inc.	1	416	416	Al Mackey Enterprises, Inc.	1	75,000	75,000
James E. Downard	1	2,000	2,000	Donald Martin Contracting	1	1,461	1,461
C. E. Duff & Son, Inc.	3	88,125	88,125	Martin Marietta Aggregates	4	2,258,129	2,290,381
E. A. Construction, Inc.	1	693	693	Massillon Materials, Inc.	1	515,983	515,983
Easton Resources, Inc.	1	1,125	1,125	Mathews Sand & Gravel	1	890	890
David E. Edgington	1	3,968	3,968	Mecco, Inc.	1	325,000	325,000
Enon Washed Sand & Gravel Co.	1	236,018	228,679	Mechanicsburg Sand & Gravel, Inc.	1	252,241	252,241
Erie Blacktop, Inc.	1	600	600	Meigs County Commissioners	1	38,038	38,038
Erie Materials, Inc.	1	576	576	Melvin Stone Co.	2	391,475	391,475
Erie Sand & Gravel Co.	1	21,168	21,168	Menuez Bros. Sand & Gravel, Inc.	1	262,863	267,000

1996 SAND AND GRAVEL COMPANIES WITH SALES OR PRODUCTION – Continued

Company	No. of operations	Sales (tons)	Production (tons)
Miami River Stone Co.	1	111,240	111,240
Miller Bros. Gravel, Inc.	1	301,623	237,437
Miller Sand & Gravel, Inc.	1	3,340	3,340
Moore's Excavating Co.	2	80,308	80,308
Morrow Gravel Co.	1	399,283	399,283
Muskingum River Gravel Co.	5	472,750	472,750
National Aggregates, Inc.	1	262,889	262,889
National Lime & Stone Co.	3	479,141	456,290
Neer's Sand & Gravel	1	140,683	142,523
Nelson Sand & Gravel, Inc.	1	43,100	43,100
Nelson Stark Co.	1	7,479	7,479
Newbury Sand & Gravel	1	22,994	22,994
New Carlisle Sand & Gravel Co.	1	604	604
Newton Asphalt Paving, Inc.	1	72,754	72,754
Nick's Trucking	1	5,580	5,580
Andy Nixon Contractors, Inc.	1	4,400	4,400
Northern Ohio Materials, Inc.	1	131,514	131,514
Northern Ohio Paving Co.	1	296,440	296,440
Carl E. Oeder & Sons Sand & Gravel	1	434,092	434,092
Oglebay Norton Industrial Sands, Inc.	1	7,495	7,495
Olen Corp.	5	2,719,220	3,569,000
Oneida Sand & Gravel, Inc.	1	108,766	108,766
Osborne Materials Co.	1	113,886	113,886
Oster Sand & Gravel, Inc.	3	825,392	825,392
Ours Sand & Gravel	1	8,749	8,749
Penry Stone Co.	1	69,206	69,206
Phillips Sand & Gravel	1	413,380	413,380
Piketon Sand & Gravel	1	638,888	696,383
Powell Gravel & Topsoil, Inc.	1	585,388	585,388
Prairie Lane Sand & Gravel Co.	1	275,749	275,749
Precision Aggregate, Inc.	2	39,368	39,368
Quality Ready Mix, Inc.	1	43,258	43,258
Rack Sand, Inc.	1	75,099	75,099
Red Brush Peat Co.	1	1,947	1,947
Richards & Son, Inc.	1	650,000	650,000
Ries Sand & Gravel	1	1,801	1,801
Riverside Sand & Gravel Co., Inc.	1	18,539	18,539
Gary Roberts Excavating	1	1,914	2,914
Rockwell Sand & Gravel, Inc.	1	268,372	268,372
Rogers Group, Inc., dba Norwalk Sand & Gravel	1	316,070	316,070
Ross County Gravel Co.	1	213,303	0
Rubber City Sand & Gravel Co.	1	60,912	60,912
Rupp Construction, Inc.	1	391,218	391,218
S. & M. Builders, Inc.	1	14,752	14,752
S & S Aggregate, Inc.	3	280,000	280,000
Samco, Inc.	1	432,616	432,616
Sant Sand & Gravel, Inc.	1	183,979	236,745
Guy Schieve	1	5,850	5,850
Schloss Materials Co.	1	97,137	97,137
Scioto Sand & Gravel	1	12,840	12,840
Scioto Valley Resources	1	196,099	217,214
Mark E. Scott	1	40,000	0
Seaway Sand & Stone, Inc.	1	178,408	178,408
Seville Sand & Gravel, Inc.	1	443,687	443,687
Shamrock Materials, Inc.	1	635,108	635,108
R. W. Sidley, Inc.	2	134,800	134,800
Simak Trucking, Inc.	1	45,204	45,204
Sleepy Hollow Sand & Gravel	1	58,910	61,910
Small's Sand & Gravel, Inc.	3	254,893	254,893
Sober Sand & Gravel Co.	1	637	637
Soehnlen Bros. Sand & Gravel, Inc.	1	82,462	82,462
Solomon's Mines, Inc.	2	96,610	96,610
Solon Excavators Sand & Gravel, Inc.	2	296,905	296,905
Soltis Sand & Gravel	1	759	975
South Central Sand & Gravel	1	19,750	19,750
Southern Ohio Aggregates, Inc.	3	7,000	7,000
Spring Creek Corp.	2	454,544	454,544
Spring Industries, Inc.	1	65,157	0
Spring Run Gravel	1	15,490	15,490
Springfield Sand & Gravel Co.	1	815,536	815,536
Stewart & Reichman, Inc.	1	21,713	21,713
Stocker Sand & Gravel Co.	2	1,159,626	1,159,626
Stoneco, Inc.	1	374,545	350,000
Sunshine Sand Co.	1	9,832	9,832
Tackett Builders	1	1,300	1,300
Teague Gravel Co., Inc.	1	80,142	80,142
Thiel Construction Co.	1	8,540	8,540
Tipp Stone Co., Inc.	2	57,467	57,467
Tri-State Asphalt Products	1	198,736	186,518
Trout Sand & Gravel Co.	1	45,252	39,843
Tuffco Sand & Gravel, Inc.	1	134,968	134,968
Union Aggregates Co.	1	78,399	78,399
Valley Materials Co.	1	68,501	85,602
Valley Sand & Gravel, Inc.	1	17,548	17,548
John Van Horn Trucking	1	763	763
Van Wey Sand & Gravel, Inc.	1	1,127,712	1,220,000
Wallace Road Sand & Gravel	1	1,200	1,200
Carl Walter	1	4,000	4,000
Ward Materials, Inc.	1	55,185	65,285
Watson Gravel, Inc.	3	1,413,957	1,413,957
Weber Sand & Gravel, Inc.	1	206,252	206,252
Weidle Sand & Gravel, Inc.	1	259,590	259,590
Welch Sand & Gravel, Inc.	3	965,239	965,239
Mark Williams Blacktop Co., Inc.	1	25,696	25,696
Willowbrook	1	24,234	24,234
Wise Gravel	1	192	192
Wysong Gravel Co.	2	303,365	303,365
Xenia Sand, Gravel & Asphalt Co.	1	400	400
Young's Sand & Gravel Co.	3	302,173	302,173
Zollinger Sand & Gravel Co.	1	66,362	66,362
TOTAL: 230 companies	292	52,092,243	52,767,008

Sand-classification system at Olen Corporation's Columbus Plant #3, Franklin County. After the raw material is separated by size, the sand-size material is separated into concrete sand and mason sand. Photo courtesy of Gregg Webb, plant manager.

First field conveyor being fed raw material from the floating conveyors connected to the dredger (to the right, out of view). Olen Corporation, Columbus Plant #3, Franklin County. Photo courtesy of Gregg Webb, plant manager.

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Ald-G).

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Allen	Ward Materials, Inc.	Ward Materials, Inc.	Monroe	sand — filtration gravel — building, filtration	An-15
Ashland	Bolin & Bartley, Inc.	Simington Rd.	Montgomery	sand — unspecified gravel — unspecified	Ald-16
	Joyce A. Good	Good Pit	Jackson	gravel — bank run	Ald-G
	Ries Sand & Gravel	Ries Sand & Gravel	Mohican	sand — building, road construction/resurfacing, filtration gravel — building, road construction/resurfacing	Ald-9
	Young's Sand & Gravel Co.	Sprang	Green	sand — building, road construction/resurfacing, individuals gravel — building, road construction/resurfacing, individuals	Ald-7
		Young's Sand & Gravel Co.	Green	sand — building, road construction/resurfacing, individuals gravel — building, road construction/resurfacing, individuals	Ald-15
		Young's Sand & Gravel Co.	Green	sand — building, road construction/resurfacing, individuals gravel — building, road construction/resurfacing, individuals	Ald-Y
Ashtabula	Clemson Excavating, Inc.	Clemson Excavating, Inc.	Hartsgrove	gravel — building	Asa-C
	Easton Resources, Inc.	Brockway	Plymouth	sand — fill	Asa-22
	Frye Sand & Gravel, Inc.	Frye Sand & Gravel, Inc.	Denmark	gravel — bank run	Asa-10
	Kinsman Sand & Gravel Co.	Kinsman Sand & Gravel Co.	Wayne	sand — unspecified gravel — unspecified	Asa-20
	Mathews Sand & Gravel	Mathews Sand & Gravel	North Kingsville	sand — filler gravel — building, driveways	Asa-M
	Nelson Sand & Gravel, Inc.	Nelson Sand & Gravel, Inc.	North Kingsville	sand — building gravel — building	Asa-N
	R. W. Sidley, Inc.	Conneaut Pit	Kingsville	sand — building, portland cement concrete, filtration, fill gravel — filtration, drainage, anti skid	Asa-15
	Simak Trucking, Inc.	Simak Trucking, Inc.	Kingsville	sand — building, road construction/resurfacing, filtration, ice control gravel — building, road construction/resurfacing, filtration	Asa-18
Athens	Black Top Contracting, Inc.	Black Top #1	Rome	sand — asphaltic concrete gravel — asphaltic concrete	As-588
	Cochran Transportation Services, Inc.	Cochran Transportation Services, Inc.	Dover	sand — unspecified gravel — unspecified	As-595
	Lake Hope Asphalt, Inc.	Lake Hope Asphalt, Inc.	York	sand — asphaltic concrete, miscellaneous gravel — asphaltic concrete, miscellaneous	As-1161
	Olen Corp.	Stewart Plant #4	Rome	sand — asphaltic concrete gravel — building	As-W
Auglaize	National Lime & Stone Co.	Wapakoneta Plant	Union	sand — building, portland cement concrete gravel — portland cement concrete	Ae-30
	Quality Ready Mix, Inc.	Quality Pit	Pusheta	sand — portland cement concrete gravel — portland cement concrete	Ae-16
Belmont	Tri-State Asphalt Products	Tri-State Asphalt Products	Mead	sand — asphaltic concrete gravel — asphaltic concrete, road construction/resurfacing	Bt-74
Butler	American Aggregates Corp.	Fairfield #711	Fairfield	sand — road construction/resurfacing gravel — road construction/resurfacing	Br-35
		Hamilton #710	St. Clair	sand — road construction/resurfacing gravel — road construction/resurfacing	Br-5
	Gaston Bowling, Inc.	Indian Creek Sand & Gravel Co.	Ross	gravel — building, bank run	Br-40
	Broshear Contractors, Inc.	Ross Township Gravel	Ross	sand — road construction/resurfacing gravel — road construction/resurfacing	Br-48
	Bill D. Colwell	Sipps Lane	St. Clair	gravel — road construction/resurfacing	Br-36
	Dingledine Basic Materials, Inc.	Dingledine Basic Materials, Inc.	Milford	sand — asphaltic concrete, fill gravel — asphaltic concrete, road construction/resurfacing, fill	Br-50
	The Gravel Co.	New Miami Put	St. Clair	sand — unspecified gravel — unspecified	Br-3
	Martin Marietta Aggregates	Ross	Ross	sand — road construction/resurfacing gravel — road construction/resurfacing	Br-29

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Butler (cont.)	Mecco, Inc.	Mecco, Inc.	Lemon	sand — building, portland cement concrete, asphaltic concrete gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Br-15
	Shamrock Materials, Inc.	Shamrock Materials, Inc.	Madison	sand — unspecified gravel — unspecified	Br-52
	Southern Ohio Aggregates, Inc.	Southern Ohio Aggregates, Inc.	St. Clair	sand — road construction/resurfacing gravel — road construction/resurfacing	Br-S
	Welch Sand & Gravel, Inc.	Schlichter Pit	Fairfield	sand — building gravel — building	Br-38
Carroll	Oneida Sand & Gravel, Inc.	Oneida Sand & Gravel, Inc.	Brown	sand — road construction/resurfacing gravel — road construction/resurfacing	Cl-204
Champaign	Mechanicsburg Sand & Gravel, Inc.	Mechanicsburg Sand & Gravel, Inc.	Union	sand — building gravel — building	Cpn-22
	Moore's Excavating Co.	Moore's Excavating Co.	Salem	sand — building gravel — building	Cpn-20
Clark	American Aggregates Corp.	Fairborn #413	Bethel	sand — road construction/resurfacing gravel — road construction/resurfacing	Ck-13
	Barrett Paving Materials, Inc.	Fairborn #141	Mad River	sand — portland cement concrete gravel — portland cement concrete	Ck-28
	Demmy Construction, Inc.	Pit II	Mad River	sand — building gravel — road construction/resurfacing, utility line	Ck-501
	Demmy Sand & Gravel	Demmy Sand & Gravel	Mad River	sand — building	Ck-502
	Enon Washed Sand & Gravel Co.	Enon Washed Sand & Gravel Co.	Bethel	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base	Ck-3
	Hilltop Basic Resources, Inc.	Fairborn Aggregate Plant	Bethel	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base	Ge-4[1]
	Moore's Excavating Co.	Moore's Excavating Co.	Moorefield	sand — building gravel — building	Ck-29
	Springfield Sand & Gravel Co.	Springfield Sand & Gravel Co.	Springfield	sand — building, portland cement concrete, asphaltic concrete, mason sand gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, fill, ice control, landscape	Ck-25
Clermont	Barrett Paving Materials, Inc.	Perintown	Union	sand — unspecified gravel — unspecified	Ct-9
	Kipp's Gravel Co., Inc.	Kipp's Gravel Co., Inc.	Stonelick	sand — unspecified gravel — unspecified	Ct-7
Clinton	Melvin Stone Co.	Melvin	Richland	sand — building, asphaltic concrete gravel — building, asphaltic concrete	Cln-1
Columbiana	Inland South Aggregates	Inland South Aggregates	Middleton	sand — asphaltic concrete gravel — road construction/resurfacing	Ca-351
	Solomon's Mines, Inc.	Solomon's Mines, Inc. #2	Salem	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	Ca-S
	Carl Walter	Walter Pit	West	sand — fill gravel — fill	Ca-W
	Willowbrook	Willowbrook	Elk Run	sand — unspecified gravel — unspecified	Ca-993
Coshocton	William Albert, Inc.	William Albert, Inc.	Franklin	sand — building, road construction/resurfacing, filtration, other gravel — building, road construction/resurfacing, filtration, other	Cn-828
	Apache Aggregate & Paving Co.	Apache Aggregate & Paving Co.	Keene	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing	Cn-783
	Boyd Gravel Co.	Boyd Gravel Co.	Bethlehem	sand — unspecified gravel — unspecified	Cn-694
Crawford	Gibson Sand & Gravel Co.	Gibson Sand & Gravel Co.	Jefferson	sand — unspecified gravel — unspecified	Cd-3

Cuyahoga	Boyas Excavating, Inc.	Boyas' Valley View Quarry	Independence	sand — unspecified gravel — unspecified	Cya-42
Darke	Foureman's Sand & Gravel, Inc.	Foureman's Sand & Gravel, Inc.	Greenville	sand — unspecified gravel — unspecified	Dke-4
	Hollinger Excavating	Hollinger Gravel	Harrison	gravel — farm ballast	Dke-10
Defiance	Hillsdale Sand & Gravel, Inc.	Hillsdale Sand & Gravel, Inc.	Farmer	gravel — road construction/resurfacing	De-2
Erie	Erie Materials, Inc.	Erie Materials, Inc.	Margaretta	sand — other	Ee-18
	Jarrett Sand Co.	Jarrett Sand Co.	Groton	sand — fill	Ee-29
	Keener Sand & Clay Co.	Huron Plant	Huron	sand — foundry	Ee-5
Fairfield	Paul D. Beery Trucking Co.	Paul D. Beery Trucking Co.	Berne	sand — unspecified gravel — unspecified	Fd-14
	Davis Sand & Gravel	Davis Sand & Gravel	Hocking	sand — unspecified gravel — unspecified	Fd-12
	James E. Downard	Downard Pit	Rush Creek	sand — fill	Fd-16
	Lancaster Sand & Gravel Co.	Lancaster Sand & Gravel Co.	Berne	sand — building, portland cement concrete, asphaltic concrete gravel — building, asphaltic concrete	Fd-13
Franklin	Agg Rok Materials	Agg Rok Materials	Franklin	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Fn-36
	American Aggregates Corp.	Columbus #210	Marion	sand — road construction/resurfacing gravel — road construction/resurfacing	Fn-6
	Big Walnut Sand & Gravel, Inc.	Big Walnut Sand & Gravel, Inc.	Hamilton, Madison	sand — fill, utilities bedding gravel — fill, utilities bedding	Fn-14
	JP Sand & Gravel Co.	JP Sand & Gravel Co.	Hamilton	sand — building gravel — building	Fn-52
	Olen Corp.	Hilliard Plant #1	Brown	sand — building gravel — building	Fn-43
		Columbus Plant #3	Hamilton	sand — building, portland cement concrete, asphaltic concrete, industrial sand gravel — building, portland cement concrete, asphaltic concrete	Fn-58
Fulton	Al Mackey Enterprises, Inc.	Al Mackey Enterprises, Inc.	Swan Creek	sand — unspecified gravel — unspecified	Ftn-M
Gallia	Cremeans Concrete & Supply	Cremeans Concrete & Supply	Addison	sand — fill, bank run	Ga-626
	Jaymar, Inc.	Jaymar, Inc.	Addison	sand — unspecified	Ga-J
	Ours Sand & Gravel	Ours Sand & Gravel	Ohio	sand — unspecified	Ga-O
Geauga	Haueter Sand & Gravel, Inc.	Haueter Sand & Gravel, Inc.	Burton, Newbury	sand — building gravel — filtration	Gea-29
	Newbury Sand & Gravel	Newbury Sand & Gravel	Burton, Newbury	sand — fill	Gea-N
	Solon Excavators Sand & Gravel, Inc.	May	Auburn	sand — building gravel — building	Gea-43
	Soltis Sand & Gravel	Soltis Sand & Gravel	Parkman	sand — fill gravel — fill	Gea-9
	Teague Gravel Co., Inc.	Teague Gravel Pit	Newbury	sand — building, portland cement concrete, filtration gravel — building, portland cement concrete, filtration	Gea-35
Greene	American Aggregates Corp.	Haines Rd. #419	Beaver Creek	sand — road construction/resurfacing gravel — road construction/resurfacing	Ge-32
		Xenia #414	Beaver Creek	sand — road construction/resurfacing gravel — road construction/resurfacing	Ge-33
		Spring Valley Gravel #434	Spring Valley	sand — road construction/resurfacing gravel — road construction/resurfacing	Ge-42
	M.J. Coates Construction Co,	M.J. Coates Construction Co.	Spring Valley	sand — building gravel — building	Ge-47
	James D. Graham	Graham Pit	Spring Valley	gravel — road construction/resurfacing	Ge-G
	Hilltop Basic Resources, Inc.	Fairborn Aggregate Plant	Bath	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base	Ge-4[2]
	Donald Martin Contracting	Donald Martin Contracting	Spring Valley	gravel — bank run	Ge-40
	Phillips Sand & Gravel	Phillips Sand & Gravel	Beaver Creek	sand — unspecified gravel — unspecified	Ge-36

[1]See also Greene County.
[2]See also Clark County.

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Greene (cont.)	Watson Gravel, Inc.	Spring Valley	Spring Valley	sand — road construction/resurfacing gravel — road construction/resurfacing	Ge-38
	Xenia Sand, Gravel & Asphalt Co.	Xenia Sand, Gravel & Asphalt Co.	Xenia	sand — horse track	Ge-10
Hamilton	Allgeier & Son, Inc.	Pit #1	Miami	sand — building gravel — building	Hmn-AS1
	American Aggregates Corp.	Harrison #712	Harrison	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-37
	Ashcraft Sand & Gravel, Inc.	Ashcraft Sand & Gravel, Inc.	Whitewater	gravel — building	Hmn-54
	James Bunnell, Inc.	James Bunnell, Inc.	Harrison	sand — other gravel — other	Hmn-50
		James Bunnell, Inc.	Whitewater	sand — other gravel — other	Hmn-59
		James Bunnell, Inc.	Whitewater	sand — other gravel — other	Hmn-B
	Joe E. Carter	Lost Bridge	Whitewater	gravel — bank run	Hmn-JC
	Crosby Gravel	Crosby Gravel	Crosby	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-44
	Harrison Sand & Gravel Co.	Harrison Sand & Gravel Co.	Harrison	sand — building, portland cement concrete, road construction/resurfacing, filtration, ice control gravel — building, portland cement concrete, filtration, other	Hmn-17
	Leonard Sand & Gravel	Leonard Sand & Gravel	Crosby	sand gravel	Hmn-67[3]
	Martin Marietta Aggregates	Camp Dennison	Symmes	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-5
		Miamitown	Crosby, Whitewater	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-D
	Nelson Stark Co.	Nelson Stark Gravel Pit	Miami	sand — building gravel — building	Hmn-C
	Powell Gravel & Topsoil, Inc.	Powell Gravel & Topsoil, Inc.	Whitewater	sand — building gravel — building	Hmn-71
	Rack Sand, Inc.	Rack Sand, Inc.	Mill Creek	sand — building	Hmn-10
	Southern Ohio Aggregates, Inc.	Southern Ohio Aggregates, Inc.	Whitewater	sand — road construction/resurfacing gravel — road construction/resurfacing	Hmn-SO
	Watson Gravel, Inc.	Harrison Pit	Whitewater	sand — unspecified gravel — unspecified	Hmn-60
	Welch Sand & Gravel, Inc.	East Miami Pit	Colerain	sand — building gravel — building	Hmn-48
		Fernald Pit	Crosby	sand — building gravel — building	Hmn-42
Hocking	Hocking Valley Concrete, Inc.	Hocking Valley Concrete, Inc.	Green	sand — building, portland cement concrete gravel — portland cement concrete	Hg-262
	Hocking Valley Mulch	Sheets Pit	Falls	sand — fill gravel — driveways	Hg-HV
	Kilbarger Construction, Inc.	Kilbarger Gravel Pit	Falls	gravel — road construction/resurfacing	Hg-329
	Muskingum River Gravel Co.	Muskingum River Gravel Co.	Green, Starr	sand — road construction/resurfacing gravel — road construction/resurfacing	Hg-301
Holmes	Feikert Sand & Gravel, Inc.	Feikert Sand & Gravel, Inc.	Salt Creek	sand — building, portland cement concrete, road construction/resurfacing gravel — building, portland cement concrete, road construction/resurfacing	Hs-511[4]
	Menuez Bros. Sand & Gravel, Inc.	Fair Pit	Hardy	sand — portland cement concrete, asphaltic concrete, ice control gravel — portland cement concrete, road construction/resurfacing	Hs-82
	Spring Run Gravel	Spring Run Gravel	Killbuck, Monroe	sand — unspecified gravel — unspecified	Hs-96
	John Van Horn Trucking	John Van Horn Trucking	Washington	gravel — fill, bank run	Hs-VH
Huron	Erie Blacktop, Inc.	Erie Blacktop Sand & Gravel Pit	Norwalk	sand — asphaltic concrete gravel — asphaltic concrete	Hrn-16
	Rogers Group, Inc. (dba Norwalk Sand & Gravel)	Norwalk Sand & Gravel	Norwalk	sand — road construction/resurfacing gravel — road construction/resurfacing	Hrn-1

Knox	Oglebay Norton Industrial Sands, Inc.	Millwood	Union	sand — filtration	Kx-1
	Olen Corp.	Fredericktown Plant #2	Morris	sand — portland cement concrete, asphaltic concrete gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	Kx-16
	Sant Sand & Gravel, Inc.	Sant Sand & Gravel, Inc.	Clinton	sand — building gravel — building, road construction/resurfacing	Kx-3
	Small's Sand & Gravel, Inc.	Killduff Rd.	Harrison	sand — unspecified gravel — unspecified	Kx-15
		Zion Rd.	Harrison	gravel — unspecified	Kx-17
		Mickley Pit	Union	sand — unspecified gravel — unspecified	Kx-5
Lake	C.I.R., Inc.	Harmon	Madison	gravel — pipe fill	Lke-CIR
	R. W. Sidley, Inc.	Painesville Pit	Painesville	sand — portland cement concrete, fill gravel — drainage	Lke-7
Lake Erie	Erie Sand & Gravel Co.	Erie Dredge	Vermilion-Lorain Area "A"	sand — building	Ee-D
	Osborne Materials Co.	Osborne Dredge	Fairport	sand — building, portland cement concrete, asphaltic concrete, filtration	Lke-D
Lawrence	B & L Sand Co.	B & L Sand Co.	Perry	sand — fill	Le-430
Licking	Geiger Sand & Gravel	Alexandria Pit	St. Albans	sand — filtration gravel — filtration	Lg-W
	Olen Corp.	St. Louisville Plant #5	Washington	sand — road construction/resurfacing, portland cement concrete, asphaltic concrete gravel — building, road construction/resurfacing, portland cement concrete, asphaltic concrete	Lg-31
	Gary Roberts Excavating	Gary Roberts Excavating	Madison	sand — fill gravel — driveways	Lg-504
	Sleepy Hollow Sand & Gravel	Sleepy Hollow Pit	Madison	sand — building gravel — building	Lg-S
	Van Wey Sand & Gravel, Inc.	Van Wey Sand & Gravel, Inc.	Newton	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, golf course sand gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	Lg-10
Logan	C. E. Duff & Son, Inc.	Portable	Jefferson	sand — building	Lgn-12
		Bellefontaine	Lake	sand — filtration	Lgn-36
		Duff Sand Co.	Washington	sand — building, portland cement concrete	Lgn-31
	Neer's Sand & Gravel	Neer's Sand & Gravel	Union	sand — unspecified gravel — unspecified	Lgn-6
Lorain	Guy Schieve	Schieve Pit	Henrietta	sand — building	Ln-12
Lucas	Craig Fankhauser	Fankhauser Pit	Swanton	sand — building	Ls-F
	S. & M. Builders, Inc.	S. & M. Builders Pit	Sylvania	sand — other	Ls-SMB
	Seaway Sand & Stone, Inc.	Seaway Sand & Stone, Inc.	Swanton	sand — building	Ls-13
Madison	Tuffco Sand & Gravel, Inc.	Tuffco Sand & Gravel, Inc.	Darby	sand — portland cement concrete gravel — building, fill, driveways	Mdn-11
Mahoning	Solomon's Mines, Inc.	Solomon's Mines, Inc.#1	Green	sand — building, road construction/resurfacing, filtration gravel — building, road construction/resurfacing, filtration	Mg-632
	Wallace Road Sand & Gravel	Wallace Road Sand & Gravel	Springfield	sand — fill	Mg-630
Marion	Fleming Construction Co., Inc.	Fleming Construction Co., Inc.	Prospect	sand — mason sand gravel — fill	Mn-19
	Penry Stone Co.	Prospect Plant	Prospect	sand — building gravel — building	Mn-4
	Scioto Sand & Gravel	Scioto Sand & Gravel	Prospect	sand — mason sand gravel — fill	Mn-16
	Union Aggregates Co.	Prospect Sand & Gravel Plant	Prospect	sand — unspecified gravel — unspecified	Mn-10

[3]Production only, no sales.
[4]Information for Hs-511 includes information for Hs-F.

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY — Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Medina	Baker Sand, Inc.	Baker Sand, Inc.	Harrisville, Westfield	sand — building, asphaltic concrete, road construction/ resurfacing, fill gravel — road construction/resurfacing	Ma-20
	Friendsville Sand, L.P.	Friendsville Sand, L.P.	Westfield	sand — building gravel — building	Ma-23
	Seville Sand & Gravel, Inc.	Seville Sand & Gravel, Inc.	Harrisville	sand — building, asphaltic concrete, filtration gravel — building, asphaltic concrete, road construction/ resurfacing	Ma-22
Meigs	Martin Marietta Aggregates	Apple Grove	Letart	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration gravel — bulding, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	Ms-205
	Meigs County Commissioners	Meigs County Pit	Letart	sand — road construction/resurfacing gravel — road construction/resurfacing	Ms-301
	Richards & Son, Inc.	Richards & Son, Inc.	Letart	sand — building, asphaltic concrete gravel — building, asphaltic concrete	Ms-298
Miami	American Aggregates Corp.	Troy Gravel #433	Concord	sand — road construction/resurfacing gravel — road construction/resurfacing	Mi-3
	Fenner Sand & Gravel, Inc.	Woodville Concrete Corp.	Newton	sand — portland cement concrete gravel — portland cement concrete	Mi-4
	New Carlisle Sand & Gravel Co.	New Carlisle Sand & Gravel Co.	Bethel	sand — fill gravel — fill	Mi-501
	Tipp Stone Co., Inc.	Troy	Elizabeth	sand — unspecified gravel — unspecified	Mi-12
	Wise Gravel	Wise Gravel	Newberry	sand — building, farm use gravel — building, farm use	Mi-9
Montgomery	American Aggregates Corp.	Rip Rap Road #416	Wayne	sand — road construction/resurfacing gravel — road construction/resurfacing	My-66
	Broadway Sand & Gravel, Inc.	Broadway Sand & Gravel, Inc.	Harrison	sand — building gravel — building	My-65
	Carter & Carter, Inc.	Carter & Carter, Inc.	Miami	sand — road construction/resurfacing gravel — road construction/resurfacing	My-CW
	Hilltop Basic Resources, Inc.	West Carrollton Aggregate Plant	Jefferson, Miami	sand — building, portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, fill, base	My-19
	Jimsco, Inc.	Taylorsville Rd. Hardfill	Wayne	gravel — parking lot	My-55
	Miller Bros. Gravel, Inc.	Miller Bros. Gravel, Inc.	Butler	sand — building, portland cement concrete, asphaltic concrete, mason sand gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration, other	My-52
	Tipp Stone Co., Inc.	Meeker	Butler	sand — unspecified gravel — unspecified	My-61
	Weidle Sand & Gravel, Inc.	Weidle Sand & Gravel, Inc.	German	sand — unspecified gravel — unspecified	My-41
Morgan	Chesterhill Stone Co.	Buck Farm	Windsor	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, filtration	Mon-588
	Link Trucking Co.	Link Trucking Co.	Bloom	sand — building, portland cement concrete gravel — building, portland cement concrete, filtration	Mon-L
Morrow	Chesterville Sand & Gravel Co., Inc.	Chesterville Sand & Gravel Co., Inc.	Chester	sand — building, filtration gravel — building, road construction/resurfacing, filtration, ice control, landscaping	Mw-10
Muskingum	Boyd Gravel Co.	Dresden Plant #1	Cass	sand — road construction/resurfacing gravel — road construction/resurfacing	Mum-799
	Muskingum River Gravel Co.	Muskingum River Gravel Co.	Muskingum	sand — road construction/resurfacing gravel — road construction/resurfacing	Mum-262
		Muskingum River Gravel Co.	Wayne	sand — road construction/resurfacing gravel — road construction/resurfacing	Mum-228

Pickaway	Complete Resources Co.	Darby Materials Plant #5	Darby	sand — portland cement concrete, asphaltic concrete gravel — building, asphaltic concrete, road construction/ resurfacing	Fn-C
	William A. Hoffman, Jr.	Hoffman Pit	Wayne	sand — fill gravel — fill	Pky-H
	Melvin Stone Co.	Richards Farms	Circleville, Wayne	sand — building, portland cement concrete, asphaltic concrete gravel — building, asphaltic concrete	Pky-R
	Valley Sand & Gravel, Inc.	Valley Sand & Gravel, Inc.	Darby	sand — filtration gravel — building	Pky-C
Pike	Piketon Sand & Gravel	Piketon	Scioto	sand — road construction/resurfacing gravel — road construction/resurfacing	Pke-24
	South Central Sand & Gravel	Plant #1	Scioto	sand — unspecified gravel — unspecified	Pke-30
	Valley Materials Co.	Valley Materials Co.	Scioto	sand — asphaltic concrete, road construction/resurfacing gravel — asphaltic concrete, road construction/resurfacing	Pke-26
Portage	Beck Sand & Gravel, Inc.	Beck Sand & Gravel, Inc.	Shalersville	sand — unspecified gravel — unspecified	Pe-50
	Karl Brugmann Sand & Gravel, Inc.	Karl Brugmann Sand & Gravel, Inc.	Shalersville	sand — building gravel — building	Pe-15
	Oscar Brugmann Sand & Gravel, Inc.	Oscar Brugmann Sand & Gravel, Inc.	Shalersville	sand — unspecified gravel — unspecified	Pe-9
		Oscar Brugmann Sand & Gravel, Inc.	Shalersville	gravel — unspecified	Pe-OB
	R. A. Cruise Sand & Gravel, Inc.	R. A. Cruise Sand & Gravel, Inc.	Franklin, Ravenna	sand — portland cement concrete, asphaltic concrete, road construction/resurfacing, fill gravel — building, asphaltic concrete, road construction/ resurfacing, septics	Pe-45
	D & K Materials, Inc.	D & K Materials, Inc.	Brimfield	sand — building, road construction/resurfacing gravel — road construction/resurfacing	Pe-101
	Don's Dozer Service, Inc.	Don's Dozer Service, Inc.	Streetsboro	sand — building	Pe-96
	Green Oaks Potting Products, Inc.	Green Oaks	Franklin	sand — soil mix	Pe-89
	Hilltop Aggregate, Inc.	Hilltop Aggregate, Inc.	Suffield	sand — unspecified gravel — unspecified	Pe-56
	Hugo Sand Co.	Hugo Sand Co.	Franklin	sand — building, road construction/resurfacing, other gravel — building, road construction/resurfacing, other	Pe-10
	Jefferson Materials Co.	Howitt	Streetsboro	sand — road construction/resurfacing gravel — road construction/resurfacing	Pe-63
	Johnson Road Sand & Gravel	Johnson Road Sand & Gravel	Franklin	sand — unspecified gravel — unspecified	Pe-98
	Lafarge Corp.	Shalersville	Shalersville	sand — building, industrial sand gravel — building	Pe-68
	Lakeside Sand & Gravel Co.	Kotkowski Pit	Shalersville	sand — portland cement concrete gravel — building	Pe-40
		Campbell Pit	Shalersville	sand — portland cement concrete gravel — building	Pe-LS
	Lucky Sand & Gravel Co.	Lucky Sand & Gravel Co.	Mantua	sand — building, asphaltic concrete, road construction/ resurfacing, fill, backfill gravel — building, asphaltic concrete, road construction/ resurfacing, filtration, fill	Pe-L
	Miller Sand & Gravel, Inc.	Miller Sand & Gravel, Inc.	Windham	sand — building, soil mix gravel — building, other	Pe-39
	Red Brush Peat Co.	Red Brush Peat Co.	Franklin	sand — soil mix gravel — other	Pe-61
	Rockwell Sand & Gravel, Inc.	Rockwell Sand & Gravel, Inc.	Streetsboro	sand — building, portland cement concrete gravel — building	Pe-85
	S & S Aggregate, Inc.	Twin Lakes Sand, Inc.	Shalersville, Streetsboro	sand — road construction/resurfacing gravel — road construction/resurfacing	Pe-59
		Twin Lakes Sand, Inc.	Streetsboro	sand — road construction/resurfacing gravel — road construction/resurfacing	Pe-67
	Schloss Materials Co.	Schloss Materials Co.	Mantua	sand — asphaltic concrete gravel — asphaltic concrete	Pe-60
	Sober Sand & Gravel Co.	Sober Sand & Gravel Co.	Rootstown	sand — road construction/resurfacing gravel — road construction/resurfacing	Pe-18
	Solon Excavators Sand & Gravel, Inc.	Alger	Mantua	sand — building gravel — building	Pe-36
	Sunshine Sand Co.	Sunshine Sand Co.	Streetsboro	sand — other	Pe-SSC

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY – Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Preble	Loxley Aggregates, Inc.	Loxley Aggregates. Inc.	Twin	sand — building gravel — building	Pre-9
	Southern Ohio Aggregates, Inc.	Southern Ohio Aggregates, Inc.	Gratis, Lanier	sand — road construction/resurfacing gravel — road construction/resurfacing	Pre-7
	Wysong Gravel Co.	Camden Plant	Somers	sand — building, road construction/resurfacing gravel — road construction/resurfacing	Pre-4
		West Alexandria Plant	Twin	sand — building, road construction/resurfacing gravel — road construction/resurfacing	Pre-6
Richland	Bolin & Bartley, Inc.	Bolin & Bartley Sand & Gravel	Weller	sand — building gravel — building	Rd-20
	D. H. Bowman & Sons, Inc.	D. H. Bowman & Sons, Inc.	Jefferson	sand — asphaltic concrete, fill gravel — building, asphaltic concrete, road construction/resurfacing, filtration, pipe bedding	Rd-4
	John L. Garber Materials, Inc.	John L. Garber Materials, Inc.	Troy	sand — building gravel — building	Rd-14
Ross	Chillicothe Sand & Gravel Co.	Chillicothe Sand & Gravel Co.	Springfield	sand — building, fill gravel — building, filtration, driveways	Rs-27
	David E. Edgington	Edgington Pit	Concord	sand — building gravel — building	Rs-E
	Haubeil & Sons Asphalt & Materials, Inc.	Haubeil & Sons Asphalt & Materials, Inc.	Springfield	sand — building, portland cement concrete, asphaltic concrete gravel — building, asphaltic concrete, road construction/resurfacing, filtration	Rs-H
	M. C. Trucking Co., Inc.	Plano Rd.	Concord	sand — road construction/resurfacing gravel — road construction/resurfacing	Rs-MC
	Muskingum River Gravel Co.	Muskingum River Gravel Co.	Jefferson	sand — road construction/resurfacing gravel — road construction/resurfacing	Rs-M
	Ross County Gravel Co.	Ross County Gravel Co.	Scioto	sand — building, asphaltic concrete gravel — building, asphaltic concrete	Rs-R
	Mark E. Scott	Scott Pit	Green	sand — road construction/resurfacing gravel — road construction/resurfacing	Rs-P
	Tackett Builders	Tackett Pit	Springfield	sand — building gravel — building	Rs-T
Scioto	ATS Enterprises	Haverhill	Green	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing gravel — building, portland cement concrete, asphaltic concrete, road construction/resurfacing	So-79
	Big T Mining	Bit T Pit	Porter	sand — industrial sand, other	So-BT
	E. E. Blair Construcion Co.	Blair Pit	Porter	sand — building, asphaltic concrete gravel — building	So-98
	Boone Coleman Construction, Inc.	Coleman Pit	Washington	sand gravel	So-B[5]
	D.G.M., Inc.	Tow Path Ready Mix	Morgan	sand — road construction/resurfacing gravel — road construction/resurfacing	So-DGM
	Scioto Valley Resources	Scioto Valley Resources	Valley	sand — unspecified gravel — unspecified	So-100
Shelby	Miami River Stone Co.	Miami River Stone Co.	Orange	sand — road construction/resurfacing gravel — road construction/resurfacing	Shy-17
	Spring Creek Corp.	Pence Deposit	Washington	sand — asphaltic concrete, portland cement concrete gravel — asphaltic concrete, portland cement concrete	Shy-11
		Jones Deposit	Washington	sand — portland cement concrete gravel — portland cement concrete	Shy-18
Stark	American Sand & Gravel	American Sand & Gravel	Jackson	sand — road construction/resurfacing gravel — road construction/resurfacing	Sk-203
		Crystal Springs	Jackson	sand — road construction/resurfacing gravel — road construction/resurfacing	Sk-243
	Beaver Excavating, Inc.	Stone Products	Canton	sand — road construction/resurfacing, other gravel — road construction/resurfacing, other	Sk-BE
	Canton Aggregate	Massillon Pit	Bethlehem	sand — road construction/resurfacing gravel — road construction/resurfacing	Sk-607

		Canton Aggregate	Perry	sand — road construction/resurfacing gravel — road construction/resurfacing	Sk-CA
		Massillon Pit	Perry	sand — road construction/resurfacing gravel — road construction/resurfacing	Sk-MW
	Heiser Sand & Gravel Co.	Heiser Sand & Gravel Co.	Jackson	sand — building gravel — building	Sk-688
		Heiser Sand & Gravel Co.	Jackson	sand — unspecified gravel — unspecified	Sk-HS
	Massillon Materials, Inc.	Massillon Materials, Inc.	Perry	sand — asphaltic concrete, road construction/resurfacing gravel — asphaltic concrete, road construction/resurfacing	Sk-M
	National Aggregates, Inc.	National Aggregates, Inc.	Sandy	sand — unspecified gravel — unspecified	Sk-1017
	Northern Ohio Paving Co.	Allied Plant #3	Perry	sand — portland cement concrete, asphaltic concrete gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing	Sk-N
	Oster Sand & Gravel, Inc.	Massillon Plant	Jackson, Perry	sand — building, asphaltic concrete, portland cement concrete, fill gravel — building, asphaltic concrete, portland cement concrete, road construction/resurfacing, ice control, fill	Sk-165
		Mudbrook Plant	Jackson	sand — fill gravel — road construction/resurfacing, fill	Sk-R
Summit	A-1 All Ohio Sand & Gravel Co.	A-1 All Ohio Sand & Gravel Co.	Coventry	sand — fill, base gravel — fill, base	St-50
	Flesher Sand & Gravel, Inc.	Flesher Sand & Gravel, Inc.	Norton	sand — unspecified gravel — unspecified	St-52
	Lerkis Asphalt Co., Inc. & Subsidiary	Minor Rd. Plant	Copley	sand — asphaltic concrete gravel — asphaltic concrete	St-39
	Riverside Sand & Gravel Co., Inc.	Riverside	Stow, Tallmadge	sand — fill, bank run	St-24
	Rubber City Sand & Gravel Co.	Rubber City Sand & Gravel Co.	Green	sand — building, portland cement concrete, fill gravel — building, road construction/resurfacing, filtration	St-9
	S & S Aggregate, Inc.	Twin Lakes Sand, Inc.	Coventry	sand — road construction/resurfacing gravel — road construction/resurfacing	St-44
Trumbull	Nick's Trucking	Nick's Trucking	Mesopotamia	sand — other	Tl-16
	Samco, Inc.	Springbrook	Mesopotamia	sand — building, portland cement concrete, asphaltic concrete, road construction/resurfacing, fill gravel — building, asphaltic concrete, road construction/resurfacing	Tl-12
Tuscarawas	Al Gasser Excavating, Inc.	Gasser Pit	Goshen	sand — building gravel — building	Ts-2049
	Goshen Sand & Gravel	Goshen Sand & Gravel	Goshen	sand — other gravel — other	Ts-1976
	Newton Asphalt Paving, Inc.	516	Dover	sand — asphaltic concrete gravel — asphaltic concrete	Ts-2001
	Northern Ohio Materials, Inc.	Northern Ohio Materials, Inc.	Goshen	sand — building gravel — building	Ts-2018
	Oster Sand & Gravel, Inc.	Bolivar Pit	Sandy	sand — building, asphaltic concrete, fill, ice control gravel — building, asphaltic concrete, road construction/resurfacing, fill, ice control	Ts-2036
	Soehnlen Bros. Sand & Gravel, Inc.	Soehnlen Bros. Sand & Gravel, Inc.	Wayne	sand — road construction/resurfacing gravel — road construction/resurfacing	Ts-1826
	Spring Industries, Inc.	Midvale Pit	Goshen	sand — portland cement concrete, ice control gravel — portland cement concrete	Ts-1771
	Stewart & Reichman, Inc.	Stewart & Reichman, Inc.	Warwick	sand — building gravel — road construction/resurfacing	Ts-111
	Stocker Sand & Gravel Co.	Stocker Sand & Gravel Co.	Clay	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	Ts-69
		Stocker Sand & Gravel Co.	Clay	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	Ts-125

[5]Production only, no sales.

1996 OHIO DIRECTORY OF SAND AND GRAVEL MINING OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY – Continued

County	Name of operator	Name of pit	Township	Type and principal use	State mine number
Warren	American Aggregates Corp.	Franklin #714	Franklin	sand — road construction/resurfacing gravel — road construction/resurfacing	Wan-38
	Paul N. Herdman	Herdman Pit	Salem	sand — unspecified gravel — unspecified	Wan-46
	L & I Natural Resources, Inc.	L & I Pit & Mill	Union	sand — building gravel — building, road construction/resurfacing	Wan-50
	Morrow Gravel Co.	Morrow Gravel Co.	Salem	sand — road construction/resurfacing gravel — road construction/resurfacing	Wan-M2
	Carl E. Oeder & Sons Sand & Gravel	Oeder Pit	Union	sand — road construction/resurfacing gravel — road construction/resurfacing	Wan-41
	Watson Gravel, Inc.	Mason Pit	Union	sand — road construction/resurfacing gravel — road construction/resurfacing	Wan-10
Washington	Atlas Towing Co.	Belpre Bank Run	Belpre	sand — bank run	Wn-54
	Beverly Slag Co.	Devola Pit	Muskingum	sand — unspecified gravel — unspecified	Wn-55
	Briggs Sand & Gravel, Inc.	Briggs Sand & Gravel, Inc.	Warren	sand — building gravel — road construction/resurfacing	Wn-508
	M & J Sand & Gravel, Inc.	M & J Sand & Gravel, Inc.	Newport	sand — other	Wn-1010
	Muskingum River Gravel Co.	Plant #2	Grandview	sand — road construction/resurfacing gravel — road construction/resurfacing	Wn-38
	Trout Sand & Gravel Co.	Trout Sand & Gravel Co.	Warren	sand — unspecified gravel — unspecified	Wn-510
	Mark Williams Blacktop Co., Inc.	Williams Pit #2	Warren	sand — building, asphaltic concrete gravel — asphaltic concrete	Wn-1007
Wayne	Buckeye Excavating Development, Inc.	Steiner Pit	Canaan	gravel — building	We-23
	E. A. Construction, Inc.	#1	Clinton	sand — building gravel — building	We-24
	Prairie Lane Sand & Gravel Co.	Prairie Lane Sand & Gravel Co.	Franklin	sand — building, road construction/resurfacing gravel — building, road construction/resurfacing	We-11
	Rupp Construction, Inc.	Rupp Construction, Inc.	Baughman	sand — building, portland cement concrete, asphaltic concrete gravel — building, portland cement concrete, asphaltic concrete	We-7
	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	sand — building, portland cement concrete, fill gravel — fill, driveways	We-15
Williams	Heer Excavating, Inc.	Mason Pit	Superior	sand — building gravel — building	Ws-22
	Andy Nixon Contractors, Inc.	Nixon Pit	Madison	sand — bank run gravel — bank run	Ws-N
	Stoneco, Inc.	South Montpelier	Superior	sand — portland cement concrete, asphaltic concrete, road construction/resurfacing gravel — portland cement concrete, asphaltic concrete, road construction/resurfacing	Ws-6
	Thiel Construction Co.	Thiel Construction Co.	Superior	gravel — building	Ws-21
	Weber Sand & Gravel, Inc.	Weber Sand & Gravel, Inc.	St. Joseph	sand — unspecified gravel — unspecified	Ws-11
Wood	Precision Aggregate, Inc.	Precision Aggregate II	Portage	sand — building	Wd-14
Wyandot	Kirby's Sand & Gravel, Inc.	Kirby's Sand & Gravel, Inc.	Eden	sand — building, filtration gravel — road construction/resurfacing, filtration	Wt-17
	National Lime & Stone Co.	Upper Sandusky Plant	Eden	sand — building, portland cement concrete gravel — portland cement concrete	Wt-15[6]
	Precision Aggregate, Inc.	Precision Aggregate I	Crane, Eden	sand — portland cement concrete gravel — building	Wt-4

[6]Information for Wt-15 includes information for Wt-18.

1996 SANDSTONE/CONGLOMERATE COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
Best Sand Corp.	2	861,945	1,088,456
Briar Hill Stone Co.	6	21,141	21,141
Oscar Brugmann Sand & Gravel, Inc.	1	37,606	45,000
Cleveland Quarries	2	6,766	6,766
D. & D. Mining Co.	1	500	500
E. A. Construction, Inc.	1	23,533	23,533
Gwin Contracting Co.	1	8,840	8,840
Johnson Stone Products, Inc.	1	11,500	0
Keeney Sand & Stone, Inc.	1	61,019	61,019
Kimble Clay & Limestone Co.	1	34,252	34,252
Leetonia Sand & Gravel Co., Inc.	1	9,750	9,750
Mesenburg Bros., Inc.	1	11,264	11,264
Newbury Sand & Gravel	1	28,302	28,302
Oglebay Norton Industrial Sands, Inc.	2	474,687	474,687
Riverside Sand & Gravel Co., Inc.	1	884	884
R. W. Sidley, Inc.	2	165,450	170,450
Slankard Dozer Service, Inc.	1	753	2,975
Solomon's Mines, Inc.	1	21,405	21,405
U.S. Silica Co.	1	16,724	17,177
Waller Bros. Stone Co.	2	12,495	12,495
TOTAL: 20 companies	30	1,808,816	2,038,896

1996 OHIO DIRECTORY OF SANDSTONE/CONGLOMERATE MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Gea-N).

County	Name of operator	Name of quarry	Township	Geological unit	Type and principal use	State mine number
Columbiana	D. & D. Mining Co.	D. & D. Strip	Unity		crushed or broken stone — construction	Ca-888
	Leetonia Sand & Gravel Co., Inc.	Leetonia Sand & Gravel Co., Inc.	Salem		crushed or broken stone — unspecified	Ca-982
	Solomon's Mines, Inc.	Solomon's Mines, Inc. #2	Salem		crushed or broken stone — riprap, construction	Ca-S
Coshocton	Briar Hill Stone Co.	Quarry #26	Monroe	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-13
		Quarry #32	Monroe	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-686
		Quarry #24	Monroe	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-692
		Quarry #55	Monroe	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-815
		Quarry #54	Monroe	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-809
		Quarry #3	Tiverton	Massillon (Pennsylvanian)	dimension stone — rough construction	Cn-659
Erie	Cleveland Quarries	Birmingham Quarry	Florence	Berea (Mississippian)	dimension stone — rough construction, finished stone	Ee-21
Geauga	Best Sand Corp.	Best Sand Corp.	Munson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — foundry sand, glass sand, metallurgical pebble, refractory, polishing/grinding sand, engine sand, frac sand, construction, filler/extender, turf, landscape	Gea-3
	Newbury Sand & Gravel	Newbury Sand & Gravel	Burton		crushed or broken stone — construction	Gea-N
	R. W. Sidley, Inc.	Hambden Quarry	Hambden		crushed or broken stone — construction	Gea-S
		Thompson Pit	Thompson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — metallurgical pebble, aggregate, construction, golf course sand, filtration, mortar sand, sandblasting	Gea-1
Huron	Mesenburg Bros., Inc.	Mesenburg Bros., Inc.	Townsend	Berea (Mississippian)	crushed or broken stone — riprap	Hrn-8
Knox	Oglebay Norton Industrial Sands, Inc.	Millwood	Union	Black Hand (Mississippian)	crushed or broken stone — glass sand, silica flour, engine sand, frac sand, industrial sand, recreation	Kx-1
Lake	Keeney Sand & Stone, Inc.	Keeney Sand & Stone, Inc.	Leroy		crushed or broken stone — aggregate	Lke-K
Lorain	Cleveland Quarries	Amherst Quarries	Amherst	Berea (Mississippian)	dimension stone — rubble, grindstones, finished stone	Ln-3
	Johnson Stone Products, Inc.	Kipton Quarry	Camden		crushed or broken stone — riprap	Ln-J
Mahoning	Gwin Contracting Co.	Gwin Contracting Co.	Milton	Sharon sandstone (Pennsylvanian)	crushed or broken stone — fractured laminated sand rock	Mg-62
Perry	Oglebay Norton Industrial Sands, Inc.	Glass Rock	Hopewell	Massillon (Pennsylvanian)	crushed or broken stone — glass sand, silica flour, frac sand, industrial sand, recreation, filtration	Py-344
Pike	Best Sand Corp.	Schrader Quarry	Jackson	Sharon conglomerate (Pennsylvanian)	crushed or broken stone — foundry sand, glass sand, metallurgical pebble, polishing/grinding sand, construction, filler/extender, landscape, filtration	Pke-31
Portage	Oscar Brugmann Sand & Gravel, Inc.	Oscar Brugmann Sand & Gravel, Inc.	Shalersville		crushed or broken stone — unspecified	Pe-9
Scioto	Waller Bros. Stone Co.	Inskeep Quarry	Rush	Buena Vista (Mississippian)	dimension stone — rough construction	So-48
		Crabtree Quarry	Morgan, Rush, Union	Buena Vista (Mississippian)	dimension stone — rough construction	So-76
Summit	Riverside Sand & Gravel Co., Inc.	Riverside	Stow, Tallmadge		crushed or broken stone — riprap	St-24
Tuscarawas	Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Dover		crushed or broken stone — construction	Ts-1818
	Slankard Dozer Service, Inc.	Beach City Pit	Franklin		crushed or broken stone — aggregate	Ts-2032
	U.S. Silica Co.	Dundee Plant	Wayne	Massillon (Pennsylvanian)	crushed or broken stone — industrial sand	Ts-1660
Wayne	E. A. Construction, Inc.	#1	Clinton		crushed or broken stone — construction	We-EA

1996 CLAY COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
American Landfill, Inc.	1	1,812	1,812
Athens County	1	131,250	131,250
Athens Hocking Reclamation Center	1	1,610	1,610
Belden Brick Co.	4	231,478	231,478
Blue Jay Enterprises of Ts. Co., Inc.	1	29,339	29,339
Bowerston Shale Co.	1	7,759	7,759
Browning Ferris Industries of Ohio, Inc.	1	175,600	175,600
Brush Wellman, Inc.	1	30,000	30,000
Buckeye Industrial Mining Co.	3	14,115	14,115
Cedar Heights Clay Co.	3	57,717	57,717
Clark Clay Co.	1	3,836	3,836
Cochran Transportation Services, Inc.	1	3,539	3,539
D. & D. Mining Co.	1	31,591	31,591
D & K Materials, Inc.	1	47	47
Dennis Clay Co.	2	13,469	13,469
James E. Downard	1	865	865
E. A. Construction, Inc.	1	5,164	5,164
R. A. Eberts Co., Inc.	1	4,112	4,112
Green Oaks Potting Products, Inc.	1	43	43
Holmes Limestone Co.	2	65,174	65,174
JTM Industries, Inc.	1	41,845	42,645
Kimble Clay & Limestone Co.	1	297,396	297,396
Koch Engineering Co., Inc.	1	3,380	3,380
L & M Mineral Co.	3	15,060	15,060
Lafarge Corp.	1	151,295	151,295
Loxley Aggregates, Inc.	1	4,716	4,716
Oldtown Coal Co.	1	177,788	177,788
Rash Energy, Inc.	1	48,000	48,000
Red Brush Peat Co.	1	156	156
Sandkuhl Clay Works, Inc.	1	6,699	6,699
Seaway Sand & Stone, Inc.	1	15,848	15,848
Sharon Stone Co.	1	48	48
Simak Trucking, Inc.	1	9,355	9,355
Solomon's Mines, Inc.	2	4,563	4,563
Soltis Sand & Gravel	1	319	319
Southwestern Portland Cement Co.	1	148,076	148,076
State Line Resources, Inc.	1	49,071	49,071
Stone Creek Brick Co.	1	32,725	32,725
Sugarcreek Clay & Limestone Co.	1	13,761	13,761
Valley Clay Mining Co.	2	17,037	13,700
Valley Materials Co.	1	6,717	6,717
Waterloo Coal Co., Inc.	1	1,012	1,012
Weidle Sand & Gravel, Inc.	1	127,032	127,032
Zoar Mining Co.	1	2,806	2,806
TOTAL: 44 companies	57	1,983,225	1,980,688

1996 OHIO DIRECTORY OF CLAY-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Cn-B).

County	Name of operator	Name of mine or quarry	Township	Geological unit	Principal use	State mine number
Ashtabula	Simak Trucking, Inc.	Simak Trucking, Inc.	Kingsville		construction	Asa-18
Athens	Athens County	Athens County	Dover		landfill use	As-AC
	Athens Hocking Reclamation Center	Athens Hocking Reclamation Center	York		oil and gas well plugging	As-594
	Cochran Transportation Services, Inc.	Cochran Transportation Services, Inc.	Dover		construction	As-595
	R.A. Eberts Co., Inc.	Diamond Stone	Lee		unspecified	As-533
Auglaize	Sandkuhl Clay Works, Inc.	Sandkuhl Clay Works, Inc.	Salem	Pleistocene glacial clay	common clay products	Ae-7
Columbiana	Buckeye Industrial Mining Co.	West Point	Madison		vitrified products, construction	Ca-BIM
	D. & D. Mining Co.	D. & D. Strip	Unity		refractories	Ca-348
	Solomon's Mines, Inc.	Solomon's Mines, Inc. #2	Salem		construction	Ca-S
	State Line Resources, Inc.	State Line Resources, Inc.	Middleton	No. 5 & No. 6 clays (Pennsylvanian)	common clay products	Ca-505
Coshocton	JTM Industries, Inc.	Ross Clay Mine	Franklin		landfill use	Cn-JT
Fairfield	James E. Downard	Downard Pit	Rush Creek		fill	Fd-16
Geauga	Soltis Sand & Gravel	Soltis Sand & Gravel	Parkman		fill	Gea-9
Greene	Southwestern Portland Cement Co.	Miller-Trollinger	Bath		cement manufacture	Ge-8
Holmes	Clark Clay Co.	Clark Clay Co.	Hardy	Putnam Hill (Pennsylvanian)	common clay products	Hs-56
	Holmes Limestone Co.	241 Plant	Hardy	Brookville & Putnam Hill (Pennsylvanian)	common clay products	Hs-67
Jackson	Cedar Heights Clay Co. (Div. of Resco Products, Inc.)	Katie Walke	Jefferson		common clay products	Jkn-CH
		Sadler	Jefferson		common clay products	Jkn-CH1
		Harrison	Madison	No. 5 clay (Pennsylvanian)	common clay products	Jkn-CH2
	Waterloo Coal Co., Inc.	Bowman Strip	Bloomfield, Madison	No. 5 & No. 6 clays (Pennsylvanian)	unspecified	Jkn-367
Lucas	Seaway Sand & Stone, Inc.	Seaway Sand & Stone, Inc.	Swanton		common clay products	Ls-13
Mahoning	Solomon's Mines, Inc.	Solomon's Mines, Inc. #1	Green		construction	Mg-632
Montgomery	Weidle Sand & Gravel, Inc.	Weidle Sand & Gravel, Inc.	Jefferson		common clay products	My-W
Muskingum	Bowerston Shale Co.	Frazeysburg	Jackson	Flint Ridge & Middle Mercer (Pennsylvanian)	vitrified products	Mum-776
	Dennis Clay Co.	Ohio Power	Newton		unspecified	Mum 903
	Valley Clay Mining Co.	Kimpel #2	Newton	Tionesta & Brookville clays (Pennsylvanian)	stoneware	Mum-904
Noble	Sharon Stone Co.	Sharon Stone Co.	Noble		oil & gas well plugging	Ne-S
Ottawa	Browning Ferris Industries of Ohio, Inc.	Ottawa County Landfill	Erie		landfill use	Oa-BF
	Brush Wellman, Inc.	Brush Wellman Clay Mine	Harris		unspecified	Oa-19
Paulding	Lafarge Corp.	Paulding Quarry	Crane	Detroit River & upper Dundee (Devonian)	cement manufacture	Pg-1
Perry	Dennis Clay Co.	Dennis Clay Co.	Monday Creek	No. 5 clay (Pennsylvanian)	unspecified	Py-338
	Valley Clay Mining Co.	Tague Mine	Harrison	No. 5 clay (Pennsylvanian)	stoneware	Py-V
Pike	Valley Materials Co.	Valley Materials Co.	Scioto		unspecified	Pke-26
Portage	D & K Materials, Inc.	D & K Materials, Inc.	Brimfield		construction	Pe-101
	Green Oaks Potting Products, Inc.	Green Oaks	Franklin		construction	Pe-89
	Red Brush Peat Co.	Red Brush Peat Co.	Franklin		fill	Pe-61
Preble	Loxley Aggregates, Inc.	Loxley Aggregates, Inc.	Twin		construction	Pre-9
Stark	American Landfill, Inc.	American Landfill, Inc.	Sandy	No. 5 & No. 6 clays (Pennsylvanian)	landfill use	Sk-246
	Buckeye Industrial Mining Co.	Robertsville	Paris	No. 5 clay (Pennsylvanian)	construction	Sk-BI
		Close	Pike	No. 5 clay (Pennsylvanian)	vitrified products, refractories	Sk-B
	Holmes Limestone Co.	Bolivar Mine	Bethlehem	Brookville (Pennsylvanian)	common clay products	Sk-235
	Koch Engineering Co., Inc.	Koch Engineering Co., Inc.	Pike	No. 5 clay (Pennsylvanian)	vitrified products	Sk-K
	Oldtown Coal Co.	CW/MWCD Clay Project	Pike		landfill use	Sk-O

Tuscarawas	Belden Brick Co.	Wallick Pit	Franklin, Wayne	Brookville (Pennsylvanian)	common clay products	Ts-1841
		Moomaw Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1517
		Belden Pit	Sugar Creek	Brookville & Lower Kittanning (Pennsylvanian)	common clay products	Ts-1646
		Shanesville Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1939
	Blue Jay Enterprises of Ts. Co., Inc.	Swonger-Waltz Mine	Sandy	Brookville (Pennsylvanian)	common clay products, refractories	Ts-520
	Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Dover	Vanport (Pennsylvanian)	refractories, landfill use	Ts-1818
	L & M Mineral Co.	Luikert	Mill		common clay products	Ts-1914
		Spring	Mill, Warwick		common clay products	Ts-1982
		Ridgeway	Rush		common clay products	Ts-2041
	Stone Creek Brick Co.	Stone Creek Clay Mine	Jefferson		vitrified products	Ts-1557
	Sugarcreek Clay & Limestone Co.	Winfield	Dover	No. 5 clay (Pennsylvanian)	unspecified	Ts-2047
	Zoar Mining Co.	Zoar Mining Co.	Sandy		common clay products	Ts-540
Wayne	E. A. Construction, Inc.	#1	Clinton		construction	We-EA
	Rash Energy, Inc.	Mt. Eaton Reclamation	Paint	No. 6 clay (Pennsylvanian)	common clay products	We-26

1996 SHALE COMPANIES WITH SALES OR PRODUCTION

Company	No. of operations	Sales (tons)	Production (tons)
American Landfill, Inc.	1	7,987	7,987
Belden Brick Co.	4	169,251	169,251
Blue Jay Enterprises of Ts. Co., Inc.	1	10,795	10,795
Bowerston Shale Co.	2	51,328	51,328
Buckeye-Industrial Mining Co.	2	4,093	4,093
Craigton Shale Co.	1	9,888	9,888
Dennis Clay Co.	3	26,520	26,520
Dome Minerals, Inc.	1	24,587	24,587
E.M.A.I. Corp., dba ESSROC Materials, Inc.	2	117,107	117,107
General Clay Products Corp.	2	6,765	6,765
Glen-Gery Corp.	1	190,287	190,287
Holmes Limestone Co.	2	48,114	48,114
Hydraulic Press Brick Co.	1	280,429	280,429
Kimble Clay & Limestone Co.	1	13,550	13,550
Knox County Board of Commissioners	1	2,976	2,976
London Tile Co.	1	1,224	1,224
Prairie Lane Sand & Gravel Co.	1	27,731	27,731
Rash Energy, Inc.	1	27,000	27,000
Richland Moulded Brick Co.	1	25,000	25,000
Rumpke Mounting Mining Co.	1	255,076	255,076
Stone Creek Brick Co.	1	6,280	6,280
Summitville Tiles, Inc.	1	38,171	0
Towne Square Products	1	1,100	1,100
Frank Widmor Coal Co., Inc.	1	2,017	2,017
Zollinger Sand & Gravel	1	10,000	10,000
TOTAL: 25 companies	35	1,357,276	1,319,105

1996 OHIO DIRECTORY OF SHALE-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

For those mines for which the Division of Mines has not assigned a state mine number, a letter designation is used (example: Kx-K).

County	Name of operator	Name of mine	Township	Geological unit	Principal use	State mine number
Ashland	London Tile Co.	Biglow	Ruggles	Bedford (Mississippian)	common clay products	Ald-1
Belmont	Frank Widmor Coal Co., Inc.	Bellaire Stone	Pultney	Monongahela (Pennsylvanian)	construction	Bt-1190
Columbiana	Dome Minerals, Inc.	Dome Minerals, Inc.	Franklin		pavers	Ca-947
	Summitville Tiles, Inc.	Summitville Tiles, Inc.	Franklin		common clay products	Ca-205
Coshocton	General Clay Products Corp.	Drescher Pit	Crawford	Lower Kittanning (Pennsylvanian)	common clay products	Cn-787
Cuyahoga	Hydraulic Press Brick Co.	Hydraulic Press Brick Co.	City of Independence	Chagrin (Devonian)	lightweight aggregate	Cya-19
Hamilton	Rumpke Mountain Mining Co.	Rumpke Mountain Mining Co.	Colerain		landfill use	Hmn-72
Harrison	Bowerston Shale Co.	Bowerston	Monroe	Conemaugh (Pennsylvanian)	vitrified products	Hn-152
Holmes	Holmes Limestone Co.	241 Plant	Hardy	Brookville & Vanport (Pennsylvanian)	common clay products	Hs-67
Knox	Knox County Board of Commissioners	Apple Valley	Brown		construction	Kx-K
Licking	Bowerston Shale Co.	Hanover	Hanover	Logan (Mississippian)	vitrified products	Lg-501
Mahoning	E.M.A.I. Corp., dba ESSROC Materials, Inc.	Bessemer Pit	Poland	Vanport (Pennsylvanian)	cement manufacture	Mg-608
		Carbon Pit	Poland, Springfield		cement manufacture	Mg-EM
Marion	Glen-Gery Corp.	Iberia Quarry	Tully	Bedford (Mississippian)	common clay products	Mn-7
Medina	General Clay Products Corp.	General Clay Products Corp.	Wadsworth		common clay products	Ma-6
Muskingum	Dennis Clay Co.	Ohio Power	Newton		unspecified	Mum-903
		Baker	Newton		unspecified	Mum-DCC
Noble	Towne Square Products	Towne Square Products	Buffalo		common clay products	Ne-66
Perry	Dennis Clay Co.	Dennis Clay Co.	Monday Creek		unspecified	Py-338
Richland	Richland Moulded Brick Co.	Richland Moulded Brick Co.	Franklin, Weller	Bedford (Mississippian)	vitrified products	Rd-R
Stark	American Landfill, Inc.	American Landfill, Inc.	Sandy	Lower & Middle Kittanning (Pennsylvanian)	landfill use	Sk-246
	Buckeye Industrial Mining Co.	Robertsville	Paris		vitrified products	Sk-BI
		Close	Pike	Lower Kittanning (Pennsylvanian)	construction	Sk-B
Tuscarawas	Belden Brick Co.	Wallick Pit	Franklin, Wayne	Brookville (Pennsylvanian)	common clay products	Ts-1841
		Moomaw Pit	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1517
		Belden Pit	Sugar Creek	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-1646
		Shanesville Pit	Sugar Creek	Brookville (Pennsylvanian)	common clay products	Ts-1939
	Blue Jay Enterprises of Ts. Co., Inc.	Swonger-Waltz Mine	Sandy	Brookville & Tionesta (Pennsylvanian)	common clay products	Ts-520
	Holmes Limestone Co.	Rainsberg Farm	Rush		common clay products	Ts-H1
	Kimble Clay & Limestone Co.	Kimble Clay & Limestone Co.	Dover	Vanport (Pennsylvanian)	landfill use	Ts-1818
	Stone Creek Brick Co.	Stone Creek Shale Pit	Jefferson		vitrified products	Ts-1558
Wayne	Craigton Shale Co.	Craigton Shale Co.	Clinton		construction	We-25
	Prairie Lane Sand & Gravel Co.	Prairie Lane Sand & Gravel Co.	Franklin		construction	We-11
	Rash Energy, Inc.	Mt. Eaton Reclamation, Inc.	Paint	Middle Kittanning (Pennsylvanian)	common clay products	We-26
	Zollinger Sand & Gravel Co.	Zollinger Sand & Gravel Co.	Chippewa	Middle Kittanning (Pennsylvanian)	construction	We-15

1996 OHIO DIRECTORY OF SALT-MINE AND SALT-BRINING-PLANT OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Geological unit and product	State mine number
Cuyahoga	Akzo Nobel Salt, Inc.	Cleveland Mine	City of Cleveland	Salina (Silurian) — rock salt	Cya-30
Lake	Morton International, Inc. Morton Salt Div.	Fairport Mine	Painesville	Salina (Silurian) — rock salt	Lke-6
Licking	R. H. Penick Co.	R. H. Penick Co.	Newark	"Newburg" (Silurian) — natural brine	Lg-45
Summit	Akzo Nobel Salt, Inc.	Akron Mine	Coventry	Salina (Silurian) — artificial brine	St-9127
Wayne	Morton International, Inc., Morton Salt Div.	Morton Salt Well Field	Milton	Salina (Silurian) — artificial brine	We-9129

1996 OHIO DIRECTORY OF GYPSUM-MINE OPERATORS REPORTING SALES OR PRODUCTION

County	Name of operator	Name of mine	Township	Geological unit	State mine number
Ottawa	Celotex Corp.	American #2	Portage	Silurian	Oa-2

1996 OHIO DIRECTORY OF PEAT-MINE OPERATORS REPORTING SALES OR PRODUCTION, BY COUNTY

County	Name of operator	Name of mine	Township	Type and principal use	State mine number
Champaign	Sphagnum Moss Peat Farm	Sphagnum Moss Peat Farm	Harrison	mulch	Cpn-9
Portage	Green Oaks Potting Products, Inc.	Green Oaks	Franklin	soil mix	Pe-89
	Red Brush Peat Co.	Red Brush Peat Co.	Franklin	soil mix	Pe-61
Williams	Lingvai Peat Co.	Lingvai Peat Co.	Center	mulch	Ws-17

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY

COAL ● ○

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
3	Belmont	Bt-68	D-0360	Ohio Valley Coal Co.
19	Belmont	Bt-927	D-0483	Fairpoint Coal Co.
146	Harrison	Hn-217	D-0440	Varkony Mining Co.
161	Holmes	Hs-67	IM-3, IM-768	Holmes Limestone Co.
165	Jackson	Jkn-367	D-0594, D-0968, D-1083	Waterloo Coal Co., Inc.
180	Jefferson	Jfn-687	D-0404, D-0939	Weirton Construction Co.
186	Jefferson	Jfn-784	D-0728	F. & M. Coal Co.
189	Jefferson	Jfn-830	D-0983	Anthony Mining Co., Inc.
205	Mahoning	Mg-65	D-0374	Thompson Bros. Mining Co.
212	Meigs, Vinton	Ms-293	D-0354, D-0463	Southern Ohio Coal Co.
213	Meigs	Ms-294	D-0355	Southern Ohio Coal Co.
215	Monroe	Me-4	D-0433	Quarto Mining Co.
228	Morgan	Ne-41	D-1034, D-1084	Central Ohio Coal Co.
246	Stark	Sk-208	D-1015	ENZ, Inc.
261	Tuscarawas	Ts-1646	IM-44	Belden Brick Co.
262	Tuscarawas	Ts-1727	IM-9	Kimble Clay & Limestone Co.
267	Tuscarawas	Ts-1914	D-0701	L & M Mineral Co.
300	Meigs, Vinton	Ms-293	D-0354, D-0463	Southern Ohio Coal Co.
357	Vinton	Vn-172	D-0445	Benedict, Inc.
363	Stark	Sk-235	IM-945, D-0865	Holmes Limestone Co.
420	Vinton	Vn-184	D-0609	Benedict, Inc., Waterloo Coal Co., Inc.
424	Belmont	Bt-1150	D-0478, D-0597	Marietta Coal Co.
433	Tuscarawas	Ts-1991	D-0702	Daron Coal Co., Inc.
441	Columbiana	Ca-348	D-1002	D. & D. Mining Co.
450	Belmont	Bt-1162	D-0720	Marietta Coal Co.
452	Belmont	Bt-1164	D-0742	Marietta Coal Co.
456	Belmont	Bt-1168	D-0619	R & F Coal Co.
491	Lawrence	Le-B	IM-1188, D-0746	Belville Mining Co., Inc.
493	Noble, Washington	Ne-1008	D-0706	B & N Coal, Inc.
497	Perry	Py-340	D-0916	Buckingham Coal Co., Inc.
510	Tuscarawas	Ts-2007	D-0737	Red Malcuit, Inc.
513	Vinton	Vn-S	D-0793	Sands Hill Coal Co., Inc.
514	Noble	Ne-151	D-0807	B & N Coal, Inc.
519	Belmont	Bt-1179	D-0840	K.C.C.I.
529	Columbiana	Ca-349	D-0928	Buckeye Industrial Mining Co.
555	Tuscarawas	Ts-2005	D-0769	Valley Mining, Inc.
564	Jackson, Vinton	Vn-192	D-0207, D-1016	R. A. Eberts Co., Inc.
577	Coshocton	Cn-RF	D-0689	R & F Coal Co.
580	Harrison	Hn-710	D-0426	Harrison Mining Corp.
598	Tuscarawas	Ts-2019	D-0852	Kimble Clay & Limestone Co.
601	Tuscarawas	Ts-2023	D-0796	Holmes Limestone Co.
602	Vinton	Vn-191	D-0867, D-0957, D-1004	Waterloo Coal Co., Inc.
603	Belmont	Bt-1190	IM-1089, D-1061	Frank Widmor Coal Co.
604	Belmont	Bt-AT	D-0922	Marietta Coal Co.
609	Columbiana	Ca-892	D-0896	C & E Coal, Inc.
626	Noble	Ne-154	D-0900	B & N Coal, Inc.
627	Noble	Ne-155	D-0958	B & N Coal, Inc.
631	Stark	Sk-246	D-1090	American Landfill, Inc.
636	Tuscarawas	Ts-2040	D-0935	Miller Mining, Inc.
637	Tuscarawas	Ts-GC	D-0967	Miller Mining, Inc.
646	Columbiana	Ca-986	D-1111	C & E Coal, Inc.
647	Columbiana	Ca-987	D-0928	Buckeye Industrial Mining Co.
648	Guernsey	Gy-315	D-0951	Northshore Coal, Inc.
652	Jackson	Jkn-1070	D-0997, D-1115	R. A. Eberts Co., Inc.
653	Jackson	Jkn-1071	D-1003	Sands Hill Coal Co., Inc.
657	Jefferson	Jfn-823	D-0949	Sterling Mining Co.
663	Perry	Py-A	D-0931	Avis Coal Co.
667	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
671	Tuscarawas	Ts-DC	D-0954	Daron Coal Co., Inc.
674	Tuscarawas	Ts-HLC	D-0969	Holmes Limestone Co.
676	Wayne	We-26	IM-690, IM-1210	Rash Energy, Inc.
683	Belmont	Bt-B	D-0998	Northshore Coal, Inc.
686	Carroll	Cl-HM1	D-1035	Myers Mining

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

COAL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
688	Columbiana	Ca-CM	D-0999	Commercial Minerals
692	Coshocton	Cn-RF1	D-1012	R & F Coal Co.
695	Coshocton	Cn-841	D-1033	R & R Minerals, Inc.
696	Guernsey	Gy-318	D-1025	Valley Mining, Inc.
714	Jefferson	Jfn-833	D-1049	Valley Mining, Inc.
716	Muskingum	Mum-O	D-1030	Oxford Mining Co., Inc.
718	Stark	Sk-BI	D-1043	Buckeye Industrial Mining Co.
720	Tuscarawas	Ts-1841	IM-45	Belden Brick Co.
724	Tuscarawas	Ts-H1	IM-927	Holmes Limestone Co.
725	Tuscarawas	Ts-2039	D-1023	Miller Mining, Inc.
727	Belmont	Bt-CCC	D-1080	Cravat Coal Co.
730	Belmont	Bt-M2	D-1029	Marietta Coal Co.
731	Belmont	Bt-RF2	D-1062	R & F Coal Co.
732	Belmont	Bt-VM	D-1059	Valley Mining, Inc.
734	Carroll	Cl-514	D-1081	Miller Mining, Inc.
736	Columbiana	Ca-997	D-1051	Commercial Minerals, Inc.
737	Columbiana	Ca-998	D-1068	Commercial Minerals, Inc.
739	Columbiana	Ca-MC	D-1069	Mardis Coal Co.
742	Coshocton	Cn-RF3	D-1071	R & F Coal Co.
745	Guernsey	Gy-327	D-1088	Holmes Limestone Co.
746	Harrison	Hn-757	D-1054	Myers Mining
748	Harrison	Hn-759	D-1037	Melvin Schaney
749	Harrison	Hn-761	D-1082, D-1097	Sunnydale Mining
750	Harrison	Hn-RF1	D-1076	R & F Coal Co.
753	Holmes	Hs-HLC1	D-1092	Holmes Limestone Co.
755	Jackson	Jkn-S1	D-1031	Sands Hill Coal Co., Inc.
756	Jefferson	Jfn-835	D-1063	Anthony Mining Co., Inc.
757	Jefferson	Jfn-JC	D-1067	Cravat Coal Co., Joyce Coal Co., Inc.
758	Jefferson	Jfn-ST	D-1019	Sterling Mining Co.
760	Noble	Ne-BN	D-1038	B & N Coal, Inc.
761	Noble	Ne-BN1	D-1032	B & N Coal, Inc.
762	Perry	Py-BM1	D-1089	Buckingham Coal Co., Inc.
763	Perry	Py-BM2	D-1093	Buckingham Coal Co., Inc.
764	Perry	Py-O	D-1086	Oxford Mining Co., Inc.
766	Tuscarawas	Ts-DCC	IM-1075	Daron Coal Co., Inc.
768	Tuscarawas	Ts-MM3	D-1085	Miller Mining, Inc.
769	Carroll	Cl-BIM	D-1107	Buckeye Industrial Mining Co.
770	Columbiana	Ca-BIM	D-1112	Buckeye Industrial Mining Co.
771	Columbiana	Ca-CM	D-0999	Commercial Minerals, Inc.
772	Coshocton	Cn-OM	D-1104	Oxford Mining Co., Inc.
774	Harrison	Hn-762	D-1100	Miller Mining, Inc.
775	Harrison	Hn-766	D-1041	Schiappa Coal Co., Inc.
776	Harrison	Hn-C	D-1098	Cravat Coal Co.
777	Holmes	Hs-HL	D-1109	Holmes Limestone Co.
778	Jackson	Jkn-SHCC	D-1108	Sands Hill Coal Co., Inc.
779	Stark	Sk-HCC	D-1106	Holmes Limestone Co.
780	Coshocton, Tuscarawas	Cn-TS	D-1110	Miller Mining Co.
781	Tuscarawas	Ts-2031	D-0963	Kimble Clay & Limestone Co.
783	Tuscarawas	Ts-520	IM-214	Blue Jay Enterprises of Ts. Co., Inc.
784	Tuscarawas	Ts-K4	D-1079	Kimble Clay & Limestone, Co.
785	Tuscarawas	Ts-RF	D-1101	R & F Coal Co.
786	Vinton	Vn-177	D-0971	Benedict, Inc.
787	Gallia	Ga-629	D-1095	Sands Hill Coal Co., Inc.
788	Belmont	Bt-1172	D-0753	Marietta Coal Co.
789	Columbiana	Ca-CE	D-1127	C & E Coal, Inc.
790	Columbiana	Ca-1003	D-0928	Buckeye Industrial Mining Co.
791	Coshocton	Cn-RF4	D-1119	R & F Coal Co.
792	Guernsey	Gy-N	D-1118	Northshore Coal, Inc.
793	Guernsey	Gy-307	D-0608	R & F Coal Co.
794	Harrison	Hn-J	D-1096	Robert Stewart Mining

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

COAL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
795	Harrison	Hn-767	D-1124	Schiappa Coal Co., Inc.
796	Harrison, Jefferson	Jfn-K	IM-1164	K.C.C.I.
797	Jackson	Jkn-CH2	IM-1302	Cedar Heights Clay Co.
798	Muskingum	Mum-RF	D-1131	R & F Coal Co.
799	Noble	Ne-BN2	D-1122	B & N Coal, Inc.
800	Perry	Py-BC	D-1120	Buckingham Coal Co., Inc.
801	Perry	Py-BC1	D-1126	Buckingham Coal Co., Inc.
802	Stark	Sk-B	D-1123	Buckeye Industrial Mining Co.
803	Tuscarawas	Ts-AL	D-1121	Miller Mining, Inc.
804	Tuscarawas	Ts-MM4	D-1117	Miller Mining, Inc.
805	Tuscarawas	Ts-MM5	D-1130	Miller Mining, Inc.
806	Tuscarawas	Ts-VM	D-1125	Valley Mining, Inc.
807	Tuscarawas	Ts-2041	D-1116	L & M Mineral Co.

COAL-PREPARATION PLANTS ◐

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
3	Belmont	Bt-936	D-0216	Marietta Coal Co.
4	Belmont	Bt-68	D-0360	Ohio Valley Coal Co.
5	Columbiana	Ca-879	D-0806	Buckeye Industrial Mining Co.
6	Columbiana	Ca-892	D-0599	C & E Coal, Inc.
7	Coshocton	Cn-810		Conesville Coal Preparation Co.
9	Jackson	Jkn-1055	D-0347	Sands Hill Coal Co., Inc.
10	Jackson	Jkn-367	D-0285	Waterloo Coal Co., Inc.
13	Mahoning	Mg-623	D-0214	East Fairfield Coal Co.
14	Meigs	Ms-293	D-0354	Southern Ohio Coal Co.
15	Monroe	Me-4	D-0422	Quarto Mining Co. (subsidiary of Consolidation Coal Co.)
16	Morgan	Ne-41	D-0420	Central Ohio Coal Co.
20	Tuscarawas	Ts-1938	D-2064	Central Fuel Co.
21	Tuscarawas	Ts-1942	D-0287	Horizon Coal Corp.
22	Vinton	Vn-145	D-0159	Benedict, Inc.
24	Vinton	Vn-641	D-0169	Sands Hill Coal Co., Inc.
27	Wayne	Hs-79	D-0283	Holmes Limestone Co.
29	Columbiana	Ca-932	D-0532	Buckeye Industrial Mining Co.
30	Harrison	Hn-169	D-0424	Harrison Processing Corp.
32	Tuscarawas	Ts-HC	D-0981	Horizon Coal Corp.
33	Columbiana	Ca-505	D-0223	State Line Resources, Inc.

LIMESTONE/DOLOMITE ■

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Adams	Ads-1	IM-237	Davon, Inc.
3	Allen	An-1	IM-485	Bluffton Stone Co.
5	Allen	An-3	IM-484	National Lime & Stone Co.
7	Allen	An-4	IM-491	Suever Stone Co., Inc.
9	Athens	As-533	IM-17	R.A. Eberts Co., Inc.
10	Auglaize	Ae-31	IM-744	Con-Ag, Inc.
11	Auglaize	Ae-10	IM-486	National Lime & Stone Co.
12	Belmont	Bt-716	IM-1	Ayers Limestone Quarry, Inc.
16	Clark	Ck-1	IM-373	American Aggregates Corp.
17	Clinton	Cln-1	IM-241	Melvin Stone Co.
18	Crawford	Cd-1	IM-404	National Lime & Stone Co.
19	Darke	Dke-1	IM-362	American Aggregates Corp.
20	Delaware	Del-4	IM-262	American Aggregates Corp.
21	Delaware	Del-5	IM-207	National Lime & Stone Co.
22	Delaware	Del-3	IM-327	American Aggregates Corp.
23	Delaware	Del-2	IM-299	Penry Stone Co.
24	Erie	Ee-27	IM-608	Erie Blacktop, Inc.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

LIMESTONE/DOLOMITE — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
25	Erie	Ee-11	IM-263	Rogers Group, Inc. (dba Sandusky Crushed Stone Co.)
26	Erie	Ee-1	IM-310	Wagner Quarries Co.
27	Fayette	Fe-2	IM-169	American Aggregates Corp.
28	Fayette	Fe-1	IM-831	Melvin Stone Co.
29	Fayette	Fe-3	IM-329	American Aggregates Corp.
30	Franklin	Fn-2	IM-261	American Aggregates Corp.
31	Franklin	Fn-53	IM-185	American Aggregates Corp.
32	Greene	Ge-17	IM-435	American Aggregates Corp.
33	Clark, Greene	Ge-1	IM-393	Southwestern Portland Cement Co.
34	Greene	Ge-9	IM-364	Southwestern Portland Cement Co.
38	Hardin	Hdn-2	IM-443	Hardin Quarry Co., Inc.
41	Highland	Hd-2	IM-230	Davon, Inc.
42	Highland	Hd-3	IM-253	Ohio Asphaltic Limestone Corp.
43	Highland	Hd-4	IM-406	Marshall Quarry, Inc.
44	Holmes	Hs-67	IM-768	Holmes Limestone Co.
47	Jackson	Jkn-367	D-0594, D-0968, D-1083	Waterloo Coal Co., Inc.
49	Logan	Lgn-1	IM-574	American Aggregates Corp.
50	Logan	Lgn-15	IM-453	C. E. Duff & Son, Inc.
51	Logan	Lgn-2	IM-494	Northwood Stone & Asphalt Co.
52	Lucas	Ls-1	IM-575	The France Stone Co.
53	Lucas	Ls-3	IM-580	The France Stone Co.
54	Lucas	Ls-2	IM-503	Stoneco, Inc.
56	Mahoning	Mg-54	IM-93	Honey Creek Stone Co.
57	Mahoning	Mg-608	IM-4	E.M.A.I. Corp.
59	Marion	Mn-2	IM-423	J. M. Hamilton & Sons Co., Inc.
60	Marion	Mn-3	IM-168	National Lime & Stone Co.
61	Marion	Mn-1	IM-250	Tri-County Limestone Co.
62	Mercer	Mr-1	Im-592	Stoneco, Inc.
63	Mercer	Mr-2	IM-430	Morrow Gravel Co.
64	Miami	Mi-1	IM-382	Piqua Materials, Inc.
66	Miami	Mi-502	IM-414	Barrett Paving Materials, Inc.
67	Miami	Mi-10	IM-335	C.F. Poeppelman, Inc.
70	Montgomery	My-1	IM-374	American Aggregates Corp.
71	Montgomery	My-23	IM-368	American Aggregates Corp.
72	Montgomery	My-58	IM-330	Southwestern Portland Cement Co.
73	Morgan	Mon-600	D-1034	Central Ohio Coal Co.
75	Muskingum	Mum-106	IM-297	Chesterhill Stone Co.
78	Muskingum	Mum-104	IM-277	Sidwell Bros., Inc.
80	Noble	Ne-86	IM-70	Zerger's Quarry
82	Ottawa	Oa-6	IM-296	White Rock Quarry, L.P.
83	Ottawa	Oa-14	IM-320	Stoneco, Inc.
84	Ottawa	Oa-7	IM-440	Lafarge Corp.
85	Ottawa	Oa-1	IM-292	GenLime Group, L.P.
86	Paulding	Pg-7		The France Stone Co.
87	Paulding	Pg-1	IM-513	Lafarge Corp.
88	Paulding	Pg-2	IM-481	Stoneco, Inc.
89	Perry	Py-235	IM-515	Maxville Quarries, Inc.
91	Pike	Pke-13	IM-213	Latham Limestone, Inc.
92	Pickaway	Pky-4	IM-209	Melvin Stone Co.
95	Preble	Pre-5	IM-447	Wysong Stone Co.
98	Putnam	Pm-2	IM-570	Putnam Stone Co.
101	Sandusky	Sy-5	IM-259	Gottron Bros. Co.
102	Sandusky	Sy-1	IM-537	Martin Marietta Magnesia Specialties, Inc.
103	Sandusky	Sy-4	IM-381	Redland Ohio, Inc.
104	Sandusky	Sy-3	IM-282	Redland Ohio, Inc.
106	Seneca	Sa-2	IM-352	Maple Grove Stone Co.
107	Seneca	Sa-1	IM-347	The France Stone Co.
108	Seneca	Sa-3	IM-349	The France Stone Co.
109	Seneca	Sa-8	IM-313	North Shore Stone Quarries, Inc.
110	Shelby	Shy-6	IM-389	Miami River Stone Co.
111	Shelby	Shy-16	IM-411	Miami River Stone Co.
112	Shelby	Shy-15	IM-387	Spring Creek Corp.
117	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
119	Union	Un-1	IM-208	Northwood Stone & Asphalt Co.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

LIMESTONE/DOLOMITE — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
120	Union	Un-2	IM-236	Union Aggregates Co.
121	Van Wert	Vt-3	IM-495	Stoneco, Inc.
122	Van Wert	Vt-7	IM-642	Ridge Township Quarry
123	Van Wert	Vt-1	IM-500	Suever Stone Co., Inc.
124	Vinton	Vn-174	D-0309	Clinton Stone, Inc.
129	Wood	Wd-5	IM-473	Custar Stone Co.
130	Wood	Wd-1	IM-548	MacRitchie Materials, Inc.
131	Wood	Wd-6	IM-480	Stoneco, Inc.
132	Wood	Wd-11	IM-475	Stoneco, Inc.
133	Wyandot	Wt-3	IM-298	McCarthy Stone Quarry
134	Wyandot	Wt-1	IM-405	National Lime & Stone Co.
135	Wyandot	Wt-8	IM-273	Wyandot Dolomite, Inc.
142	Greene	Ge-25	IM-437	American Aggregates Corp.
143	Montgomery	My-32	IM-1012	American Aggregates Corp.
144	Muskingum	Mum-269	IM-1009	Salt Creek Materials, Inc.
147	Guernsey, Muskingum	Gy-309	IM-1030	King Limestone, Inc.
148	Vinton	Vn-190	D-0761	Quality Stone Co.
149	Hancock	Hk-7	IM-1002	National Lime & Stone Co.
152	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co., Inc.
153	Coshocton	Cn-A	IM-1011	Jim Romig Excavating
154	Franklin	Fn-43	IM-188	Olen Corp.
155	Greene	Ge-45	IM-364	American Aggregates Corp.
156	Hardin	Hdn-S	IM-1034	C. E. Duff & Son, Inc.
158	Jackson	Jkn-SH	IM-1068	Sands Hill Coal Co., Inc.
159	Lawrence	Le-B	IM-1188, D-0746	Belville Mining Co., Inc.
160	Lucas	Ls-12	IM-953	Barrett Paving Materials, Inc.
161	Mahoning	Mg-629	IM-1008	Blum Mining Co.
162	Mahoning	Mg-EM	IM-1056	E.M.A.I. Corp.
163	Monroe	Me-C	IM-1088	Christman Quarry
164	Monroe	Me-509	IM-1094	Rubel Quarry, Inc.
166	Muskingum, Noble	N3-C	D-0820	Central Ohio Coal Co.
167	Noble	Ne-S	IM-913	Sharon Stone Co.
168	Perry	Py-343	IM-1061	Maxville Quarries, Inc.
169	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
170	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
171	Mahoning	Mg-631	IM-1103	East Fairfield Coal Co.
173	Adams	Ads-H	IM-805	Holloway Sand & Gravel Co., Inc.
174	Erie	Ee-K	IM-727	Kellstone, Inc.
175	Highland	Hd-D	IM-1170	Martin Marietta Aggregates
176	Jefferson, Harrison	Jfn-K	IM-1164	K.C.C.I.
177	Miami	Mi-BPM	IM-1169	Barrett Paving Materials, Inc.
178	Montgomery	My-Q	IM-860	Quarry Trails
179	Noble	Ne-B	IM-897	B & N Coal, Inc.
180	Ottawa	Oa-18	IM-635	Fox Stone Products, Inc.
181	Tuscarawas	Ts-B	IM-49	Belden Brick Co.
182	Vinton	Vn-193		Quality Stone Co.
183	Wood	Wd-14	IM-1157	Precision Aggregate, Inc.
184	Brown	Bn-EC	IM-1195	Davon, Inc.
185	Muskingum	Mum-907	IM-1200	Pleasant Valley Limestone
186	Muskingum	Mum-SB	IM-1212	Sidwell Bros., Inc.
187	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
188	Lucas	Ls-13	IM-492	Seaway Sand & Stone, Inc.
190	Tuscarawas	Ts-2047	IM-1224	Sugarcreek Clay & Limestone, Inc.
191	Tuscarawas	Ts-BB	IM-1221	Belden Brick Co.
192	Columbiana	Ca-BIM	IM-1271	Buckeye Industrial Mining Co.
193	Hamilton	Hmn-72	IM-1264	Rumpke Mountain Mining Co.
194	Noble	Ne-K	IM-1254	King Quarries, Inc.
195	Belmont	Bt-N	IM-1283	Northshore Coal, Inc.
196	Hancock	Hk-A	IM-1299	Adrian Sand & Stone
197	Noble	Ne-K1	IM-1292	King Quarries, Inc.
198	Ottawa	Oa-BC	IM-1288	Baycliffs Corp.
199	Ross	Rs-RC	IM-1298	M.C. Trucking Co., Inc.
200	Tuscarawas	Ts-BJ	IM-1285	Blue Jay Enterprises of Ts. Co., Inc.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

SAND AND GRAVEL DREDGING OPERATION △

Map location number	*Location*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Lake Erie	Ee-D		Erie Sand & Gravel Co.
2	Lake Erie	Lke-D		Osborne Materials Co.

SAND AND GRAVEL ▲

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
2	Allen	An-15	IM-721	Ward Materials, Inc.
6	Ashland	Ald-9	IM-745	Ries Sand & Gravel
8	Ashland	Ald-7	IM-392	Young's Sand & Gravel Co.
9	Ashtabula	Asa-10	IM-198	Frye Sand & Gravel, Inc.
10	Ashtabula	Asa-14	IM-563	Janson's Soil Service, Inc.
14	Ashtabula	Asa-12	IM-1130	Nelson Sand & Gravel, Inc.
15	Ashtabula	Asa-15	IM-783	R. W. Sidley, Inc.
19	Athens	As-588	IM-630	Black Top Contracting, Inc.
21	Athens	As-1161	IM-97	Lake Hope Asphalt, Inc.
23	Auglaize	Ae-23	IM-508	Joseph Sand & Gravel, Inc.
24	Auglaize	Ae-30	IM-598	National Lime & Stone Co.
25	Auglaize	Ae-16	IM-595	Quality Ready Mix, Inc.
26	Belmont	Bt-74	IM-288	Tri-State Asphalt Products
28	Butler	Br-36	IM-649	Bill D. Colwell
29	Butler	Br-5	IM-153	American Aggregates Corp.
30	Butler	Br-35	IM-200	American Aggregates Corp.
31	Butler	Br-48	IM-562	Broshear Contractors, Inc.
32	Butler	Br-50	IM-739	Dingledine Basic Materials, Inc.
33	Butler	Br-14	IM-147	Martin Marietta Aggregates
34	Butler	Br-29	IM-149	Martin Marietta Aggregates
37	Butler	Br-40	IM-493	Gaston Bowling, Inc.
38	Butler	Br-52	IM-814	Shamrock Materials, Inc.
39	Butler	Br-15	IM-316	Mecco, Inc.
41	Butler	Br-6	IM-177	Weidle Sand & Gravel, Inc.
42	Butler	Br-3	IM-719	The Gravel Co.
44	Butler	Br-47	IM-111	Watson Gravel, Inc.
45	Butler	Br-38	IM-218	Welch Sand & Gravel, Inc.
47	Carroll	Cl-204	IM-554	Oneida Sand & Gravel, Inc.
48	Champaign	Cpn-1	IM-371	Morrow Gravel Co.
49	Champaign	Cpn-21	IM-616	D & W Sand & Gravel
50	Champaign	Cpn-22	IM-889	Mechanicsburg Sand & Gravel, Inc.
51	Champaign	Cpn-20	IM-482	Moore's Excavating Co.
52	Clark	Ck-13	IM-366	American Aggregates Corp.
54	Clark	Ck-502	IM-375	Demmy Sand & Gravel
57	Clark	Ck-3	IM-463	Enon Washed Sand & Gravel Co.
58	Clark	Ck-25	IM-358	Springfield Sand & Gravel Co.
59	Clermont	Ct-9	IM-526	Barrett Paving Materials, Inc.
61	Clermont	Ct-7	IM-432	Kipp's Gravel Co., Inc.
68	Columbiana	Ca-881	IM-611	X L Sand & Gravel
69	Coshocton	Cn-718	IM-227	Apache Aggregate & Paving Co.
70	Coshocton	Cn-783	IM-717	Apache Aggregate & Paving Co.
71	Coshocton	Cn-694	IM-293	Boyd Gravel Co.
72	Coshocton	Cn-624	IM-243	Sugarcreek Clay & Limestone, Inc.
75	Crawford	Cd-3	IM-693	Gibson Sand & Gravel Co.
80	Darke	Dke-4	IM-433	Foureman's Sand & Gravel, Inc.
81	Darke	Dke-10	IM-326	Hollinger Excavating
82	Defiance	De-2	IM-765	Hillsdale Sand & Gravel, Inc.
83	Erie	Ee-18	IM-676	Erie Materials, Inc.
84	Erie	Ee-29		Jarrett Sand Co.
85	Erie	Ee-5		Keener Sand & Clay Co.
91	Fairfield	Fd-12	IM-451	Davis Sand & Gravel
92	Fairfield	Fd-13	IM-848	Lancaster Sand & Gravel Co.
94	Franklin	Fn-36	IM-302	Agg Rok Materials
95	Franklin	Fn-6	IM-185	American Aggregates Corp.
96	Franklin	Fn-23	IM-183	American Aggregates Corp.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

SAND AND GRAVEL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
97	Franklin	Fn-14	IM-832	Big Walnut Sand & Gravel, Inc.
98	Franklin	Fn-52	IM-191	J P Sand & Gravel Co.
100	Franklin	Fn-11	IM-234	Mason's Sand & Gravel Co.
101	Franklin	Fn-24	IM-266	S & S Aggregate, Inc.
102	Franklin	Fn-43	IM-188	Olen Corp.
108	Geauga	Gea-29	IM-215	Haueter Sand & Gravel, Inc.
109	Geauga	Gea-35	IM-321	Teague Gravel Co., Inc.
110	Greene	Ge-33	IM-379	American Aggregates Corp.
112	Clark, Greene	Ge-4	IM-394	Hilltop Basic Resources, Inc.
115	Greene	Ge-36	IM-305	Phillips SAnd & Gravel
117	Greene	Ge-10	IM-518	Xenia Sand, Gravel, & Asphalt Co.
118	Hamilton	Hmn-37	IM-170	American Aggregates Corp.
119	Hamilton	Hmn-AAC	IM-716	American Aggregates Corp.
120	Hamilton	Hmn-54	IM-710	Ashcraft Sand & Gravel, Inc.
121	Hamilton	Hmn 44	IM-120	Crosby Gravel
123	Hamilton	Hmn-50	IM-205	James Bunnell, Inc.
124	Hamilton	Hmn-59	IM-812, IM-815	James Bunnell, Inc.
126	Hamilton	Hmn-3	IM-137	Martin Marietta Aggregates
127	Hamilton	Hmn-5	IM-148	Martin Marietta Aggregates
128	Hamilton	Hmn-11, Hmn-70	IM-133	Dravo Basic Materials Co., Inc.
130	Hamilton	Hmn-64	IM-821	Martin Marietta Aggregates
131	Hamilton	Hmn-68	IM-747	Martin Marietta Aggregates
132	Hamilton	Hmn-46	IM-396	Eaton Sand & Gravel Co.
134	Hamilton	Hmn-71	IM-771	Powell Gravel & Topsoil, Inc.
135	Hamilton	Hmn-17	IM-295	Harrison Sand & Gravel Co.
137	Hamilton	Hmn-67	IM-529	Leonard Sand & Gravel
139	Hamilton	Hmn-10	IM-226	Rack Sand, Inc.
141	Hamilton	Hmn-28	IM-353	The Gravel Co.
142	Hamilton	Hmn-60	IM-761	Watson Gravel, Inc.
143	Hamilton	Hmn-42	IM-823	Welch Sand & Gravel, Inc.
144	Hamilton	Hmn-48	IM-220	Welch Sand & Gravel, Inc.
151	Hocking	Hg-262	IM-41	Hocking Valley Concrete, Inc.
152	Hocking	Hg-301	IM-458	Muskingum River Gravel Co.
153	Holmes	Hs-82	IM-707	Menuez Bros. Sand & Gravel, Inc.
154	Holmes	Hs-511	IM-1048	Feikert Sand & Gravel, Inc.
157	Huron	Hrn-1	IM-550	Rogers Group, Inc. (dba Norwalk Sand & Gravel)
160	Knox	Kx-7	IM-235	Goodwin Sand & Gravel, Inc.
161	Knox	Kx-16	IM-793	Olen Corp.
162	Knox	Kx-5	IM-884	Small's Sand & Gravel, Inc.
163	Knox	Kx-3	IM-300	Sant Sand & Gravel, Inc.
165	Knox	Kx-15	IM-967	Small's Sand & Gravel, Inc.
166	Lake	Lke-7	IM-162	R. W. Sidley, Inc.
167	Lawrence	Le-430	IM-844	B & L Sand Co.
170	Lawrence	Le-426	IM-856	Burlington SAnd & Gravel Co.
174	Licking	Lg-2	IM-184	Doug Mill
176	Licking	Lg-31	IM-246	Olen Corp.
179	Licking	Lg-10	IM-217	Van Wey Sand & Gravel, Inc.
180	Licking	Lg-15		Walter's Gravel
182	Logan	Lgn-31	IM-454	C. E. Duff & Son, Inc.
183	Logan	Lgn-39	IM-887	C. E. Duff & Son, Inc.
189	Logan	Lgn-6	IM-459	Neer's Sand & Gravel
191	Lorain	Ln-12	IM-731	Guy Schieve
195	Lucas	Ls-13	IM-492	Seaway Sand & Stone, Inc.
196	Mahoning	Mg-632	IM-808	Solomon's Mines, Inc.
197	Marion	Mn-16	IM-171	Scioto Sand & Gravel
198	Marion	Mn-4	IM-290	Penry Stone Co.
200	Marion	Mn-10	IM-196	Union Aggregates Co.
203	Medina	Ma-20	IM-448	Baker Sand, Inc.
206	Medina	Ma-22	IM-425, IM-442, IM-650, IM-651	Seville Sand & Gravel, Inc.
209	Meigs	Ms-205	IM-30	Martin Marietta Aggregates
211	Meigs	Ms-301	IM-619	Meigs County Commissioners
212	Meigs	Ms-298	IM-32	Richards & Son, Inc.
216	Miami	Mi-6	IM-356	American Aggregates Corp.
217	Miami	Mi-501		New Carlisle Sand & Gravel Co.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

SAND AND GRAVEL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
219	Miami	Mi-3	IM-462, IM-658	American Aggregates Corp.
220	Miami	Mi-8	IM-355	American Aggregates Corp.
221	Miami	Mi-9	IM-408	Wise Gravel
222	Miami	Mi-4	IM-472	Fenner Sand & Gravel, Inc.
224	Montgomery	My-66	Im-677	American Aggregates Corp.
225	Montgomery	My-65	IM-594	Broadway Sand & Gravel, Inc.
229	Montgomery	My-68	IM-646	H & H Utilities Co.
232	Montgomery	My-19	IM-401, IM-916	Hilltop Basic Resources, Inc.
233	Montgomery	My-52	IM-348	Miller Bros. Gravel, Inc.
236	Montgomery	My-55	IM-571	Jimsco, Inc.
238	Montgomery	My-61	IM-468	Tipp Stone Co., Inc.
239	Montgomery	My-41	IM-360	Weidle Sand & Gravel, Inc.
240	Morgan	Mon-588	IM-35	Chesterhill Stone Co.
242	Morrow	Mw-10	IM-258	Chesterville Sand & Gravel Co., Inc.
243	Muskingum	Mum-863	IM-264	Boyd Gravel Co.
244	Muskingum	Mum-799	IM-317	Boyd Gravel Co.
247	Muskingum	Mum-228	IM-421	Muskingum River Gravel Co.
248	Muskingum	Mum-216	IM-689	Salt Creek Materials, Inc.
251	Pickaway	Pky-1	IM-428	Melvin Stone Co.
252	Pike	Pke-26	IM-142	Valley Materials Co.
253	Pike	Pke-23	IM-242	Davon, Inc.
254	Pike	Pke-30	IM-786	South Central Sand & Gravel
255	Pike	Pke-24	IM-222	Piketon Sand & Gravel
256	Portage	Pe-50	IM-96	Beck Sand & Gravel, Inc.
257	Portage	Pe-15	IM-104	Karl Brugmann Sand & Gravel, Inc.
258	Portage	Pe-9	IM-119	Oscar Brugmann Sand & Gravel, Inc.
259	Portage	Pe-17	IM-123	Charlestown Sand & Gravel, Inc.
260	Portage	Pe-84	IM-868	Aurora Sand & Gravel, Inc.
261	Portage	Pe-45	IM-139	R.A. Cruise Sand & Gravel, Inc.
262	Portage	Pe-56	IM-127	Hilltop Aggregate, Inc.
264	Portage	Pe-10	IM-138	Hugo Sand Co.
265	Portage	Pe-63	IM-82	Jefferson Materials Co.
266	Portage	Pe-83	IM-179	Karg Sand & Gravel Co.
268	Portage	Pe-40	IM-190	Lakeside Sand & Gravel Co.
272	Portage	Pe-39	IM-174	Miller Sand & Gravel Co.
273	Portage	Pe-85	IM-700	Rockwell Sand & Gravel, Inc.
274	Portage	Pe-60	IM-78	Schloss Materials Co.
275	Portage	Pe-18	IM-193	Sober Sand & Gravel Co.
276	Portage	Pe-36	IM-90	Solon Excavators Sand & Gravel, Inc.
277	Portage	Pe-68	IM-660, IM-1047, IM-1107, IM-1124	Lafarge Corp.
280	Portage	Pe-64	IM-1017	Rainbow Sand & Gravel, Inc.
281	Portage	Pe-59	IM-210	S & S Aggregate, Inc.
282	Portage	Pe-67	IM-202	S & S Aggregate, Inc.
284	Preble	Pre-7	IM-306	Southern Ohio Aggregates
285	Preble	Pre-4	IM-477	Wysong Gravel Co.
286	Preble	Pre-6	IM-478	Wysong Gravel Co.
287	Richland	Rd-4	IM-279, IM-1255	D. H. Bowman & Sons, Inc.
289	Richland	Rd-18	IM-670	Ganges Gravel Co.
290	Richland	Rd-14	IM-436	John L. Garber Materials, Inc.
297	Ross	Rs-26	IM-922	Elm Spring Farm
303	Scioto	So-98	IM-474	E.E. Blair Construction Co.
304	Scioto	So-83	IM-211	Cunningham Asphalt Paving, Inc.
305	Scioto	So-78		E. A. Schilling & Sons, Inc.
306	Scioto	So-79	IM-221	ATS Enterprises
310	Shelby	Shy-12	IM-528	Fleckenstein Farm Gravel Pit
311	Shelby	Shy-17	IM-389	Miami River Stone Co.
312	Shelby	Shy-13	IM-412	Miami River Stone Co.
314	Shelby	Shy-11	IM-743	Spring Creek Corp.
315	Shelby	Shy-18	IM-388	Spring Creek Corp.
316	Stark	Sk-N	IM-156	Northern Ohio Paving Co.
318	Stark	Sk-681	IM-164	Canton Aggregates
319	Stark	Sk-689	IM-173	Canton Aggregate
320	Stark	Sk-694	IM-858	A. J. Diana Sons, Inc.

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SAND AND GRAVEL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
323	Stark	Sk-688	IM-763	Heiser Sand & Gravel Co.
325	Stark	Sk-607	IM-102	Canton Aggregate
326	Stark	Sk-165	IM-192, IM-781	Oster Sand & Gravel, Inc.
327	Summit	St-52	IM-900	Flesher Sand & Gravel, Inc.
328	Summit	St-39	IM-983	Lerkis Asphalt Co., Inc.
333	Summit	St-24	IM-239	Riverside Sand & Gravel Co., Inc.
334	Summit	St-9	IM-167	Rubber City Sand & Gravel Co.
335	Summit	St-26	IM-803	Spring Valley Investments, Inc.
336	Summit	St-44	IM-178	S & S Aggregate, Inc.
340	Trumbull	Tl-12	IM-131	Samco, Inc.
343	Tuscarawas	Ts-1826	IM-88	Soehnlen Bros. Sand & Gravel, Inc.
344	Tuscarawas	Ts-1771	IM-77	Spring Industries, Inc.
346	Tuscarawas	Ts-111	IM-55	Stewart & Reichman, Inc.
347	Tuscarawas	Ts-69	IM-51	Stocker Sand & Gravel Co.
348	Tuscarawas	Ts-125	IM-50	Stocker Sand & Gravel Co.
349	Warren	Wan-38	IM-615	American Aggregates Corp.
352	Warren	Wan-41	IM-629	Carl E. Oeder & Sons Sand & Gravel
356	Warren	Wan-47	IM-846	C & S Contractors, Inc.
363	Warren	Wan-10	IM-465	Watson Gravel Inc.
364	Washington	Wn-55	IM-669	Beverly Slag Co.
365	Washington	Wn-508	IM-57	Briggs Sand & Gravel, Inc.
367	Washington	Wn-38	IM-701	Muskingum River Gravel Co.
369	Washington	Wn-510	IM-25	Trout Sand & Gravel Co.
372	Wayne	We-11	IM-547	Prairie Lane Sand & Gravel Co.
373	Wayne	We-7	IM-471	Rupp Construction, Inc.
374	Wayne	We-15	IM-398	Zollinger Sand & Gravel Co.
375	Williams	Ws-6	IM-497	Stoneco, Inc.
376	Williams	Ws-9	IM-498	Stoneco, Inc.
377	Williams	Ws-11	IM-509, IM-661	Weber Sand & Gravel, Inc.
378	Williams	Ws-14	IM-614	Dennis Winzeler
379	Wyandot	Wt-4	IM-520	Precision Aggregate, Inc.
380	Wyandot	Wt-15	IM-376	National Lime & Stone Co.
381	Wyandot	Wt-18	IM-551	National Lime & Stone Co.
382	Wyandot	Wt-17	IM-604	Kirby's Sand & Gravel, Inc.
384	Summit	St-53	IM-874	Portage Lakes Sand & Gravel Co.
385	Clark	Ck-501	IM-340	Demmy Construction, Inc.
386	Stark	Sk-203	IM-654	American Sand & Gravel
387	Portage	Pe-ASG	IM-212	American Sand & Gravel
389	Tuscarawas	Ts-1976	IM-942, IM-1235	Goshen Sand & Gravel
390	Miami	Mi-T	IM-696	Lloyd Fry
395	Scioto	So-100	IM-950	Scioto Valley Resources
401	Fairfield	Fd-14	IM-933	Paul D. Beery Trucking Co.
403	Greene	Ge-40	IM-923	Donald Martin Contracting
404	Greene	Ge-42	IM-954	American Aggregates Corp.
405	Greene	Ge-32	IM-400	American Aggregates Corp.
407	Hamilton	Hmn-69	IM-969	American Aggregates Corp.
408	Knox	Kx-17	IM-968	Small's Sand & Gravel, Inc.
409	Richland	Rd-20	IM-617	Bolin & Bartley, Inc.
412	Ashland	Ald-15	IM-944	Young's Sand & Gravel Co.
413	Ashtabula	Asa-18	IM-949	Simak Trucking, Inc.
415	Geauga	Gea-9	IM-132	Soltis Sand & Gravel
416	Holmes	Hs-96	IM-997	Spring Run Gravel
417	Huron	Hrn-16	IM-975	Erie Blacktop, Inc.
419	Licking	Lg-504	IM-991	Gary Roberts Excavating
420	Logan	Lgn-36	IM-1007	C. E. Duff & Son, Inc.
423	Marion	Mn-19	IM-990	Fleming Construction Co., Inc.
424	Monroe	Me-508	IM-1000	Ohio-West Virginia Excavation
427	Summit	St-54	IM-934	R & S, Inc.
428	Tuscarawas	Ts-2001	IM-1004	Newton Asphalt
429	Warren	Wan-46	IM-679, IM-842	Paul N. Herdman
430	Warren	Wan-50	IM-1006	L & I Natural Resources, Inc.
432	Washington	Wn-54	IM-383	Atlas Towing Co.
435	Stark	Sk-173	IM-879	Allied Corp., Inc.
437	Clark	Ck-7	IM-449	City of Springfield

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SAND AND GRAVEL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
438	Coshocton	Cn-828	IM-1026	William Albert, Inc.
440	Gallia	Ga-626	IM-1046	Cremeans Concrete & Supply
441	Greene	Ge-38	IM-333	Watson Gravel, Inc.
442	Geauga	Gea-39	IM-974	B-M Machine Co.
444	Logan	Lgn-12	IM-1071	C. E. Duff & Son, Inc.
446	Miami	Mi-12	IM-467	Tipp Stone Co., Inc.
447	Miami	Mi-504	IM-1032	Stillwater Sand & Gravel, Inc.
448	Muskingum	Mum-262	IM-422	Muskingum River Gravel Co.
449	Muskingum	Mum-899		Boyd Gravel Co.
451	Portage	Pe-89	IM-1142	Green Oaks Potting Products, Inc.
452	Ross	Rs-M	IM-114	Muskingum River Gravel Co.
453	Stark	Sk-241	IM-582	Lafarge Corp.
455	Stark	Sk-243	IM-908	American Sand & Gravel
458	Athens	As-595	IM-1083	Cochran Transportation Services, Inc.
459	Athens	As-W	IM-979	Olen Corp.
460	Butler	Br-S	IM-1053	Southern Ohio Aggregates, Inc.
461	Clark	Ck-28	IM-1100	Barrett Paving Materials, Inc.
463	Columbiana	Ca-982	IM-1108	Leetonia Sand & Gravel Co., Inc.
464	Columbiana	Ca-U	IM-999	United Builders Distributing Corp.
465	Franklin	Fn-58	IM-1023	Olen Corp.
466	Gallia	Ga-O	IM-1028	Ours Sand & Gravel
467	Hamilton	Hmn-AS	IM-1106	Allgeier & Son, Inc.
468	Hamilton	Hmn-D	IM-1079	Martin Marietta Aggregates
470	Holmes	Hs-J	IM-1043	S & S Transport, Inc.
472	Lucas	Ls-G	IM-1090	H. T. Griffin Excavating, Inc.
474	Madison	Mdn-11	IM-1063	Tuffco Sand & Gravel, Inc.
475	Mahoning	Mg-630	IM-1091	Wallace Road Sand & Gravel
476	Mahoning	Mg-629	IM-1008	Blum Mining Co.
480	Pickaway	Pky-H	IM-1039	William A. Hoffman, Jr.
481	Pickaway	Pky-R	IM-993	Melvin Stone Co.
482	Portage	Pe-61	IM-1064	Red Brush Peat Co.
483	Portage	Pe-92	IM-522	Don Wartko Construction, Inc.
486	Portage	Pe-SE	IM-1096	Solon Excavators Sand & Gravel, Inc.
488	Preble	Pre-9	IM-1095	Loxley Aggregates, Inc.
490	Ross	Rs-27	IM-1098	Chillicothe Sand & Gravel Co.
491	Ross	Rs-H	IM-1052	Haubeil & Sons Asphalt & Materials, Inc.
494	Shelby	Shy-SC	IM-1018	Spring Creek Corp.
495	Stark	Sk-M	IM-1031	Massillon Materials, Inc.
496	Summit	St-55	IM-589	Alden Sand & Gravel Co.
499	Trumbull	Tl-K	IM-1101	Kleese Development Associates, Inc.
500	Tuscarawas	Ts-2018	IM-1076	Northern Ohio Materials, Inc.
501	Warren	Wan-M	IM-728, IM-1065	Morrow Gravel Co.
502	Warren	Wan-M1	IM-1051	Morrow Gravel Co.
503	Warren	Wan-M2	IM-837	Morrow Gravel Co.
504	Washington	Wn-1007	IM-1042	Mark Williams Blacktop Co., Inc.
506	Williams	Ws-T	IM-1022	Stoneco, Inc.
508	Ashland	Ald-G	IM-1121	Joyce A. Good
509	Ashland	Ald-16	IM-1120	Bolin & Bartley, Inc.
510	Ashtabula	Asa-N	IM-1109	Nelson Sand & Gravel, Inc.
516	Delaware	Del-S	IM-1118	Michael B. Sayers
517	Geauga	Gea-N	IM-1123	Newbury Sand & Gravel
518	Geauga	Gea-TK	IM-902	T & K Kuhnle Co.
519	Hamilton	Hmn-B	IM-1139	James Bunnell, Inc.
520	Hamilton	Hmn-C	IM-1132	Nelson Stark Co.
521	Hamilton	Hmn-AS1	IM-797	Allgeier & Son, Inc.
523	Hocking	Hg-329	IM-1112	Kilbarger Construction, Inc.
526	Logan	Lgn-M	IM-799	Miller Bros. Construction, Inc.
528	Portage	Pe-SSC	IM-318	Sunshine Sand Co.
529	Portage	Pe-96	IM-792	Don's Dozer Service, Inc.
530	Ross	Rs-R	IM-1143	Ross County Gravel Co.
532	Tuscarawas	Ts-2029	IM-1129	Burrgett Industries, Inc.
533	Washington	Wn-1008	IM-1111	Grimes Excavating
534	Washington	Wn-1009	IM-525	Mark Williams Blacktop Co., Inc.
535	Wayne	We-23	IM-1136	Buckeye Excavating Development, Inc.

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SAND AND GRAVEL — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
537	Clermont	Ct-11	IM-665	Dravo Lime Co.
538	Columbiana	Ca-993	IM-1180	Willowbrook
539	Columbiana	Ca-351	IM-634	Inland South Aggregates
541	Fairfield	Fd-16	IM-1156	James E. Downard
544	Gallia	Ga-J	IM-1145	Jaymar, Inc.
545	Geauga	Gea-H	IM-510	Haueter Sand & Gravel, Inc.
546	Greene	Ge-46	IM-1149	Don Thompson Excavating, Inc.
547	Greene	Ge-R	IM-829	Richards Service Garage
548	Greene	Ge-47	IM-751	M. J. Coates Construction Co.
549	Greene	Ge-W	IM-645	S & W Cement Construction, Inc.
550	Greene	Ge-G	IM-655	James D. Graham
551	Hamilton	Hmn-S	IM-746	Southern Ohio Aggregates, Inc.
552	Hamilton	Hmn-SO	IM-720	Southern Ohio Aggregates, Inc.
553	Hardin	Hdn-H	IM-864	Norman Harpster
556	Lucas	Ls-MH	IM-1144	Sandman Sand & Stone, Inc.
557	Lucas	Ls-F	IM-1160	Craig Fankhauser
558	Medina	Ma-23	IM-1177	Friendsville Sand, L.P.
559	Meigs	Ms-L	IM-1159	Letart Corp.
560	Meigs	Ms-308	IM-1174	Letart Corp.
561	Montgomery	My-CW	IM-878	Carter & Carter, Inc.
562	Montgomery	My-R	IM-539	John P. Raisch, Inc.
563	Morgan	Mon-CSC	IM-1178	Chesterhill Stone Co.
565	Pickaway	Pky-W	IM-1176	Gene T. Wilson
568	Portage	Pe-101	IM-1154	D & K Materials, Inc.
569	Pe-SM	Portage	IM-499	Schloss Materials Co.
570	Portage	Pe-L	IM-154	Lucky Sand & Gravel Co.
571	Preble	Pre-AAC	IM-779	American Aggregates Corp.
573	Ross	Rs-E	IM-1168	David E. Edgington
575	Ross	Rs-P	IM-122	Mark E. Scott
576	Scioto	So-B	IM-705	Boone Coleman Construction, Inc.
577	Shelby	Shy-SS	IM-438	Miami River Stone Co.
578	Stark	Sk-MW	IM-1171	Canton Aggregate
579	Stark	Sk-W	IM-867	Ralph C. Wagner & Sons
581	Stark	Sk-R	IM-697	Oster Sand & Gravel, Inc.
582	Stark	Sk-SI	IM-588	L & M Mineral Co.
583	Summit	St-50	IM-722	A-1 All Ohio Sand & Gravel Co.
584	Trumbull	Tl-16	IM-1158	Nick's Trucking
586	Tuscarawas	Ts-2036	IM-1155	Oster Sand & Gravel, Inc.
587	Tuscarawas	Ts-2049	IM-1151	Al Gasser Excavating, Inc.
588	Tuscarawas	Ts-SI	IM-569	L & M Mineral Co.
589	Warren	Wan-7	IM-151	Embro, Inc.
590	Washington	Wn-1010	IM-1163	M & J Sand & Gravel, Inc.
591	Wyandot	Wt-K	IM-943	Kirby Sand & Gravel, Inc.
592	Ashtabula	Asa-22	IM-1214	Easton Resources, Inc.
593	Ashtabula	Asa-20	IM-1198	Kinsman Sand & Gravel Co.
595	Cuyahoga	Cya-42	IM-686	Boyas Excavating, Inc.
596	Hocking	Hg-G	IM-1201	Good Builders
597	Lake	Lke-C	IM-1215	Cashen, Inc.
598	Lake	Lke-D	IM-1187	DeMilta Sand & Gravel, Inc.
600	Licking	Lg-W	IM-1213	Geiger Sand & Gravel
602	Mahoning	Mg-631	IM-1103	East Fairfield Coal Co.
603	Pickaway	Pky-AAC	IM-1204	Melvin Stone Co.
605	Portage	Pe-102	IM-1184	Brimfield Sand & Gravel
606	Ross	Rs-T	IM-1189	Tackett Builders
607	Stark	Sk-BE	IM-1202	Beaver Excavating, Inc.
608	Stark	Sk-HS	IM-1193	Heiser Sand & Gravel Co.
609	Stark	Sk-HS1	IM-1203	Heiser Sand & Gravel Co.
610	Stark	Sk-1017	IM-1186	National Aggregates, Inc.
611	Trumbull	Tl-C	IM-1190	Center West Enterprise, Inc.
612	Tuscarawas	Ts-A	IM-1218	Acme Sand & Gravel
613	Wayne	We-24	IM-1211	E. A. Construction, Inc.
614	Williams	Ws-20	IM-1262	Gerken Materials, Inc.
615	Portage	Pe-98	IM-1219	Johnson Road Sand & Gravel

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SAND AND GRAVEL – Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
616	Ashland	Ald-Y	IM-1216	Young's Sand & Gravel Co.
617	Ashtabula	Asa-21	IM-1239	Sunrise Sand & Gravel
619	Champaign	Cpn-25	IM-1227	T. K. Stone Co., Inc.
620	Clark	Ck-29	IM-1233	Moore's Excavating Co.
622	Fulton	Ftn-M	IM-1246	Al Mackey Enterprise, Inc.
623	Geauga	Gea-43	IM-1230	Solon Excavators Sand & Gravel, Inc.
624	Holmes	Hs-F	IM-1240	Feikert Sand & Gravel, Inc.
625	Lake	Lke-CIR	IM-1243	C.I.R., Inc.
626	Muskingum	Mum-J	IM-1229	Glen James & Sons, Inc.
627	Pickaway	Pky-C	IM-1223	Valley Sand & Gravel, Inc.
628	Portage	Pe-OB	IM-1241	Oscar Brugmann Sand & Gravel, Inc.
629	Richland	Rd-K	IM-1232	Leonard E. Kleilein
630	Scioto	So-102	IM-1250	T. T. & K. Construction, Inc.
631	Stark	Sk-CA	IM-1234	Canton Aggregate
632	Wayne	We-27	IM-1242	Valley Gravel Co.
633	Williams	Ws-21	IM-1225	Thiel Construction Co.
634	Williams	Ws-22	IM-1222	Heer Excavating, Inc.
635	Ashtabula	Asa-C	IM-1278	Clemson Excavating, Inc.
636	Columbiana	Ca-S	IM-1258	Solomon's Mines, Inc.
637	Erie	Ee-27	IM-608	Erie Blacktop, Inc.
638	Fulton	Ftn-BL	IM-1260	B & L Excavating
639	Fulton	Ftn-M1	IM-1275	Al Mackey Enterprises, Inc.
641	Hamilton	Hmn-G	IM-1270	Golsch Construction, Inc.
642	Hamilton	Hmn-JC	IM-1267	Joe E. Carter
643	Holmes	Hs-VH	IM-1263	John Van Horn Trucking
644	Knox	Kx-1	IM-269	Oglebay Norton Industrial Sands, Inc.
645	Lucas	Ls-H1	IM-1277	Hidden Harbour Partners
646	Lucas	Ls-M	IM-1261	Al Mackey Enterprises, Inc.
647	Morgan	Mon-L	IM-1266	Link Trucking Co.
648	Pickaway	Fn-C	IM-1265	Complete Resources Co.
649	Summit	St-C	IM-1251	Copley Shores Development
650	Ashtabula	Asa-F	IM-1289	Frye Sand & Gravel, Inc.
651	Ashtabula	Asa-M	IM-1301	Mathews Sand & Gravel
652	Clinton	Cln-1	IM-241	Melvin Stone Co.
653	Columbiana	Ca-W	IM-1279	Carl Walter
654	Fulton	Ftn-BL1	IM-1282	B & L Excavating
655	Fulton	Ftn-M2	IM-1294	Al Mackey Enterprises, Inc.
656	Highland	Hd-L	IM-1297	LaMar Sand & Fill, Ltd.
657	Hocking	Hg-HV	IM-1284	Hocking Valley Mulch
658	Licking	Lg-S	IM-1281	Sleepy Hollow Sand & Gravel
659	Lucas	Ls-SMB	IM-1290	S. & M. Builders, Inc.
660	Portage	Pe-B	IM-1296	Blue Stone Sand & Gravel Co.
661	Portage	Pe-LS	IM-1293	Lakeside Sand & Gravel Co.
662	Ross	Rs-MC	IM-1298	M.C. Trucking Co., Inc.
663	Scioto	So-BT	IM-1286	Big T Mining
664	Scioto	So-DGM	IM-1280	D.G.M., Inc.
665	Williams	Ws-N	IM-1291	Andy Nixon Contractors, Inc.
666	Wood	Wd-14	IM-1157	Precision Aggregate, Inc.

SANDSTONE/CONGLOMERATE ▼

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
4	Coshocton	Cn-13	IM-397	Briar Hill Stone Co.
5	Coshocton	Cn-659	IM-232	Briar Hill Stone Co.
6	Coshocton	Cn-686	IM-504	Briar Hill Stone Co.
7	Coshocton	Cn-692	IM-294	Briar Hill Stone Co.
8	Cochocton	Cn-695	IM-402	Briar Hill Stone Co.
13	Cuyahoga	Cya-42	IM-686	Boyas Excavating, Inc.
14	Erie	Ee-21	IM-416	Cleveland Quarries
17	Geauga	Gea-3	IM-89	Best Sand Corp.
18	Geauga	Gea-1	IM-163	R. W. Sidley, Inc.

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SANDSTONE/CONGLOMERATE — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
19	Holmes	Hs-49	IM-418	Briar Hill Stone Co.
20	Huron	Hrn-8	IM-268	Mesenburg Bros., Inc.
23	Knox	Kx-12	IM-445	Briar Hill Stone Co.
24	Knox	Kx-1	IM-269	Oglebay Norton Industrial Sands, Inc.
27	Lorain	Ln-3	IM-415	Cleveland Quarries
30	Mahoning	Mg-62	IM-599	Gwin Contracting Co.
34	Ross	Rs-16	IM-172	Best Sand Corp.
36	Scioto	So-48	IM-140	Waller Bros. Stone Co.
37	Scioto	So-76	IM-141	Waller Bros. Stone Co.
38	Scioto	So-82	IM-158	Waller Bros. Stone Co.
41	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
42	Tuscarawas	Ts-1660	IM-68	U.S. Silica Co.
43	Washington	Wn-45	IM-125	Alan Stone Co., Inc.
44	Coshocton	Cn-815	IM-939	Briar Hill Stone Co.
45	Pike	Pke-31	IM-835	Best Sand Corp.
46	Coshocton	Cn-809	IM-909	Briar Hill Stone Co.
47	Columbiana	Ca-970	IM-1024	M & M Builders Supply Co.
48	Perry	Py-344	IM-1014	Oglebay Norton Industrial Sands, Inc.
49	Summit	St-24	IM-239	Riverside Sand & Gravel Co., Inc.
50	Geauga	Gea-N	IM-1123	Newbury Sand & Gravel
51	Belmont	Bt-1193	IM-1117	Alan Stone Co., Inc.
53	Mahoning	Mg-631	IM-1103	East Fairfield Coal Co.
54	Tuscarawas	Ts-2032	IM-1141	Slankard Dozer Service, Inc.
55	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
56	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co., Inc.
57	Columbiana	Ca-888	IM-1181	D. & D. Mining Co.
58	Geauga	Gea-S	IM-161	R. W. Sidley, Inc.
60	Lake	Lke-K	IM-859	Keeney Sand & Stone, Inc.
61	Perry	Py-K	IM-851	Kieco Sand & Shale
62	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
63	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
64	Wayne	We-26	IM-690, IM-1210	Rash Energy, Inc.
65	Columbiana	Ca-982	IM-1108	Leetonia Sand & Gravel Co., Inc.
66	Lorain	Ln-14	IM-1205	Golden Crescent Construction, Inc.
67	Perry	Py-DCC	IM-1192	Dennis Clay Co.
68	Summit	St-60	IM-1206	Ohio Bulk Transfer Co.
70	Portage	Pe-9	IM-119	Oscar Brugmann Sand & Gravel, Inc.
71	Tuscarawas	Ts-1841	IM-45	Belden Brick Co.
72	Columbiana	Ca-S	IM-1258	Solomon's Mines, Inc.
73	Scioto	So-BC	IM-1252	Boone Coleman Construction, Inc.
74	Wayne	We-EA	IM-1259	E. A. Construction, Inc.
75	Lorain	Ln-J	IM-1300	Johnson Stone Products, Inc.

CLAY/SHALE □

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Ashland	Ald-1	IM-334	London Tile Co.
2	Auglaize	Ae-7		Sandkuhl Clay Works, Inc.
4	Columbiana	Ca-505	IM-13, IM-936	State Line Resources, Inc.
5	Columbiana	Ca-205	IM-74	Summitville Tiles, Inc.
6	Coshocton	Cn-787	IM-610	General Clay Products Corp.
7	Cuyahoga	Cya-19	IM-95	Hydraulic Press Brick Co.
10	Greene	Ge-8	IM-364	Southwestern Portland Cement Co.
11	Harrison	Hn-152	IM-42	Bowerston Shale Co.
12	Hocking	Hg-205	IM-21	General Clay Products Corp.
17	Holmes	Hs-56		Clark Clay Co.
18	Holmes	Hs-77	IM-545	General Clay Products Corp.
19	Holmes	Hs-67	IM-768	Holmes Limestone Co.
23	Jackson	Jkn-367	D-0594, D-0968, D-1083	Waterloo Coal Co., Inc.
31	Licking	Lg-501	IM-257	Bowerston Shale Co.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY – Continued

CLAY/SHALE – Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
34	Mahoning	Mg-608	IM-4	E.M.A.I. Corp.
36	Marion	Mn-7	IM-309	Glen-Gery Corp.
37	Medina	Ma-6	IM-455	General Clay Products Corp.
38	Muskingum	Mum-776	IM-256	Bowerston Shale Co.
41	Noble	Ne-66	IM-664	Towne Square Products
42	Paulding	Pg-1	IM-513	Lafarge Corp.
46	Perry	Py-212	IM-58	Ludowici-Celadon Co.
56	Tuscarawas	Ts-1517	IM-46	Belden Brick Co.
57	Tuscarawas	Ts-1646	IM-44	Belden Brick Co.
58	Tuscarawas	Ts-1841	IM-45	Belden Brick Co.
59	Tuscarawas	Ts-1939	IM-47	Belden Brick Co.
60	Tuscarawas	Ts-1960	IM-48	Belden Brick Co.
63	Tuscarawas	Ts-1818	IM-9	Kimble Clay & Limestone Co.
64	Tuscarawas	Ts-1884	IM-6	L & M Mineral Co.
65	Tuscarawas	Ts-1914	D-0701	L & M Mineral Co.
67	Tuscarawas	Ts-1557, Ts-1558	IM-52	Stone Creek Brick Co.
71	Tuscarawas	Ts-540	IM-28	Zoar Mining Co.
73	Wyandot	Wt-7	IM-407	General Clay Products Corp.
76	Stark	Sk-235	IM-945	Holmes Limestone Co.
77	Tuscarawas	Ts-1982	IM-621	L & M Mineral Co.
79	Columbiana	Ca-947	IM-935	Dome Minerals, Inc.
81	Athens	As-594		Athens Hocking Reclamation Center
82	Ashtabula	Asa-14	IM-563	Janson's Soil Service, Inc.
85	Tuscarawas	Ts-520	IM-214	Blue Jay Enterprises of Ts. Co., Inc.
86	Geauga	Gea-9	IM-132	Soltis Sand & Gravel
87	Athens	As-595	IM-1083	Cochran Transportation Services, Inc.
88	Coshocton	Cn-828	IM-1026	William Albert, Inc.
89	Erie	Ee-32	IM-1077	Speer Brothers, Inc.
90	Greene	Ge-44		Southwestern Portland Cement Co.
91	Jackson	Jkn-CH	IM-1060	Cedar Heights Clay Co.
92	Lake	Lke-M	IM-1059	Mitchell Transport, Inc.
93	Lawrence	Le-B	IM-1188, D-0746	Belville Mining Co., Inc.
99	Pike	Pke-26	IM-142	Valley Materials Co.
101	Preble	Pre-9	IM-1095	Loxley Aggregates, Inc.
103	Tuscarawas	Ts-2024	IM-1087	Green Basin Coal, Inc.
105	Belmont	Bt-1190	IM-1089	Frank Widmor Coal Co., Inc.
106	Columbiana	Ca-970	IM-1024	M & M Builders Supply Co.
107	Mahoning	Mg-EM	IM-1056	E.M.A.I. Corp.
108	Perry	Py-338	IM-1092	Dennis Clay Co.
109	Harrison	Hn-B	IM-1020	Bowerston Shale Co.
110	Hocking	Hg-330	IM-1013	General Clay Products Corp.
111	Holmes	Hs-96	IM-997	Spring Run Gravel
114	Richland	Rd-R	IM-1035	Richland Moulded Brick Co.
116	Portage	Pe-61	IM-1064	Red Brush Peat Co.
118	Mahoning	Mg-631	IM-1103	East Fairfield Coal Co.
122	Muskingum	Mum-904	IM-1127	Valley Clay Mining Co.
123	Stark	Sk-246	IM-1114	American Landfill, Inc.
124	Muskingum	Mum-903	IM-1115	Dennis Clay Co.
127	Columbiana	Ca-989	IM-1110	Summitville Tiles, Inc.
128	Athens	As-533	IM-17	R. A. Eberts Co., Inc.
130	Columbiana	Ca-348	IM-976	D. & D. Mining Co.
135	Mahoning	Mg-632	IM-808	Solomon's Mines, Inc.
136	Ottawa	Oa-19	IM-1153	Brush Wellman, Inc.
137	Perry	Py-344	IM-1014	Oglebay Norton Industrial Sands, Inc.
138	Perry	Py-S1	IM-1183	Swingle Drilling, Inc.
142	Tuscarawas	Ts-MMO	IM-1166	Miller Mining, Inc.
144	Wayne	We-26	IM-690, IM-1210	Rash Energy, Inc.
145	Jackson	Jkn-CH1	IM-1182	Cedar Heights Clay Co.
146	Stark	Sk-247	D-0929	Buckeye Industrial Mining Co.
147	Tuscarawas	Ts-B	IM-49	Belden Brick Co.
148	Knox	Kx-K	IM-870	Board of Knox County Commissioners
149	Perry	Py-K	IM-851	Kieco Sand & Shale
150	Ross	Rs-T	IM-1189	Tackett Builders

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY — Continued

CLAY/SHALE — Continued

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
151	Tuscarawas	Ts-H1	IM-927	Holmes Limestone Co.
152	Washington	Wn-1010	IM-1163	M & J Sand & Gravel, Inc.
153	Champaign	Cpn-20	IM-482	Moore's Excavating Co.
155	Fairfield	Fd-16	IM-1156	James E. Downard
156	Lucas	Ls-13	IM-492	Seaway Sand & Stone, Inc.
157	Montgomery	My-CW	IM-878	Carter & Carter, Inc.
158	Montgomery	My-W	IM-1207	Weidle Sand & Gravel, Inc.
159	Perry	Py-DCC	IM-1192	Dennis Clay Co.
161	Portage	Pe-89	IM-1142	Green Oaks Potting Products, Inc.
162	Stark	Sk-BE	IM-1202	Beaver Excavating, Inc.
163	Washington	Wn-F	IM-1208	David L. Florence
164	Columbiana	Ca-888	IM-1181	D. & D. Mining Co.
165	Wayne	We-25	IM-1209	Craigton Shale Co.
166	Ashtabula	Asa-18	IM-949	Simak Trucking, Inc.
167	Carroll	Cl-238	D-0703	Buckeye Industrial Mining Co.
169	Coshocton	Cn-OHM	IM-1247	OHM Remediation Services Corp.
171	Hocking	Hg-G	IM-1201	Good Builders
173	Perry	Py-V	IM-1245	Valley Clay Mining Co.
174	Stark	Sk-K	IM-1236	Koch Engineering Co., Inc.
175	Tuscarawas	Ts-2047	IM-1224	Sugarcreek Clay & Limestone, Inc.
176	Muskingum	Mum-DCC	IM-1220	Dennis Clay Co.
177	Tuscarawas	Ts-BB	IM-1221	Belden Brick Co.
178	Columbiana	Ca-987	D-0928	Buckeye Industrial Mining Co.
179	Wayne	We-11	IM-547	Prairie Lane Sand & Gravel Co.
180	Athens	As-AC	IM-1272	Athens County
181	Coshocton	Cn-JT	IM-1253	JTM Industries, Inc.
182	Lawrence	Le-PH	IM-1268	P & H Construction
183	Stark	Sk-O	IM-1276	Oldtown Coal Co.
184	Trumbull	Tl-12	IM-131	Samco, Inc.
185	Wayne	We-EA	IM-1259	E. A. Construction, Inc.
186	Columbiana	Ca-BIM	IM-1271	Buckeye Industrial Mining Co.
188	Harrison	Hn-CD	D-1105	Chambers Development of Ohio, Inc.
189	Stark	Sk-BI	D-1043	Buckeye Industrial Mining Co.
190	Hamilton	Hmn-72	IM-1264	Rumpke Mountain Mining Co.
191	Holmes	Hs-VH	IM-1263	John Van Horn Trucking
192	Tuscarawas	Ts-2041	D-1116	L & M Mineral Co.
193	Wayne	We-15	IM-398	Zollinger Sand & Gravel Co.
194	Columbiana	Ca-S	IM-1258	Solomon's Mines, Inc.
195	Jackson	Jkn-CH2	IM-1302	Cedar Heights Clay Co.
196	Licking	Lg-N	IM-1295	NuWay Services, Inc.
197	Noble	Ne-S	IM-913	Sharon Stone Co.
198	Ottawa	Oa-BF	IM-1287	Browning Ferris Industries of Ohio, Inc.
199	Portage	Pe-101	IM-1154	D & K Materials, Inc.
200	Stark	Sk-B	D-1123	Buckeye Industrial Mining Co.
201	Tuscarawas	Ts-BJ	IM-1285	Blue Jay Enterprises of Ts. Co., Inc.

SALT

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Cuyahoga	Cya-30		Akzo Nobel Salt, Inc.
2	Lake	Lke-6		Morton International, Inc.
3	Licking	Lg-45		R. H. Penick Co.
4	Summit	St-9127		Akzo Nobel Salt, Inc.
5	Wayne	We-9129		Morton International, Inc.

NUMERICAL INDEX OF OPERATORS OF MINES SHOWN ON 1996 MINERAL INDUSTRIES MAP OF OHIO, BY COMMODITY – Continued

GYPSUM ◆

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Ottawa	Oa-2	IM-344	Celotex Corp

PEAT ◇

Map location number	*County*	*State mine number*	*Division of Mines and Reclamation permit number*	*Name of operator*
1	Ashland	Ald-13		Mohican Organic Products, Inc.
2	Champaign	Cpn-9		Sphagnum Moss Peat Farm
4	Williams	Ws-17		Lingvai Peat Co.
7	Portage	Pe-89	IM-1142	Green Oaks Potting Products, Inc.
9	Portage	Pe-61	IM-1064	Red Brush Peat Co.
10	Montgomery	My-41	IM-360	Weidle Sand & Gravel, Inc.

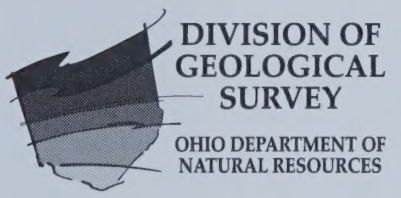
STATE OF OHIO
George V. Voinovich, Governor
DEPARTMENT OF NATURAL RESOURCES
Donald C. Anderson, Director
DIVISION OF GEOLOGICAL SURVEY
Thomas M. Berg, Chief

MINERAL INDUSTRIES MAP OF OHIO

1996

COMPILED BY
SHERRY L. WEISGARBER

This map based on operators listed in the 1996 *Report on Ohio mineral industries* and is intended for general reference. Assistance with locations was received from the Ohio Department of Natural Resources, Division of Mines and Reclamation.



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MINES, QUARRIES, AND PREP PLANTS

- ● Coal, underground
- ○ Coal, strip
- ◐ Coal, prep plant
- ◆ Gypsum
- ■ Limestone/dolomite
- ◇ Peat
- ◨ Salt, brine
- ◒ Salt, rock
- ▲ Sand and gravel
- △ Sand and gravel dredging operation
- ▼ Sandstone/conglomerate
- □ Clay/shale

Locations are approximate. Numbers opposite symbols are map-location numbers assigned to operators listed in the alphabetical directories of the Division of Geological Survey's *Report on Ohio mineral industries*. The operator of a mine or quarry may be determined from the directories by use of the map-location commodity symbol, number, and county name. A list of operators by commodity and map-location number is also provided.

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MINERAL INDUSTRIES MAP OF OHIO

1996

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DIVISION OF GEOLOGICAL SURVEY
OHIO DEPARTMENT OF NATURAL RESOURCES

OHIO Department of Natural Resources

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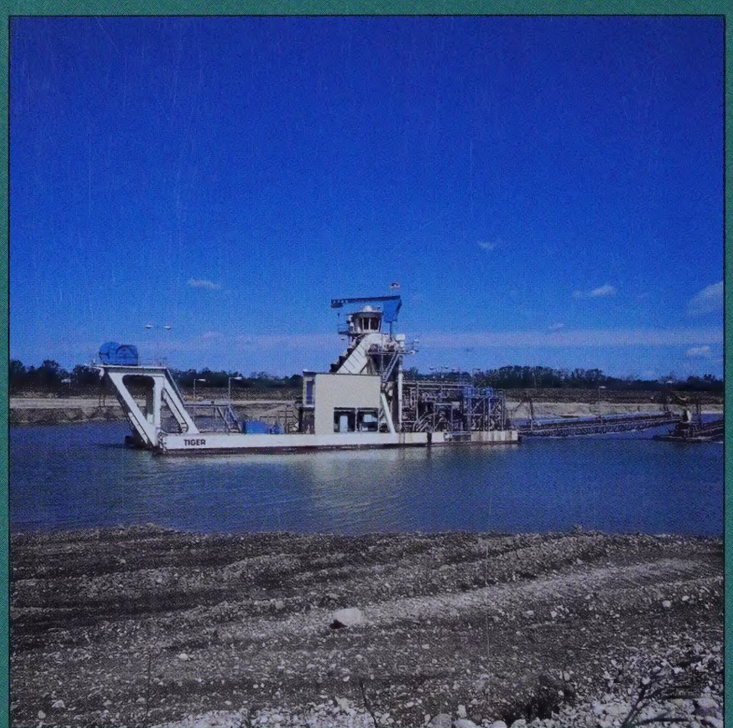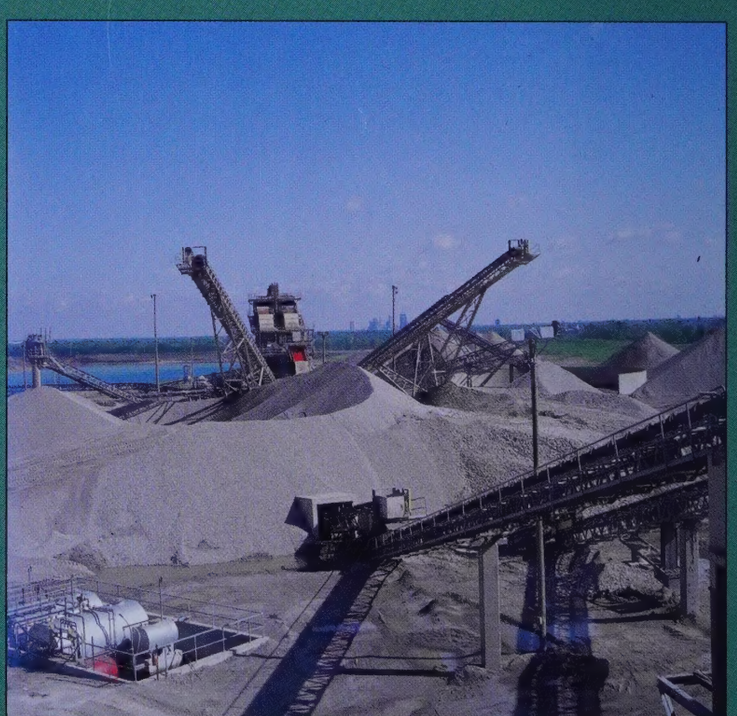
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